

ORAL ARGUMENT NOT YET SCHEDULED

Case Nos. 24-1107 (Lead)
(consolidated with Nos. 24-1109, 24-1110, 24-1211, 24-1212)

**United States Court of Appeals
For the District of Columbia Circuit**

CLEVELAND-CLIFFS INC.,

Petitioner,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al.

Respondents.

**On Petition for Judicial Review of a Final Rule of the Environmental
Protection Agency, 89 Fed. Reg. 16,408 (March 6, 2024)**

MOTION FOR STAY

June 26, 2024

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**CERTIFICATE OF COMPLIANCE
WITH CIRCUIT RULES 18(A)(1) AND (A)(2)**

The undersigned certifies that this Motion for Stay complies with Circuit Rule 18(a)(1). On May 6, 2024, Petitioner submitted to EPA a Petition for Reconsideration and Request for Administrative Stay of the “National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing,” 89 Fed. Reg. 16,408 (March 6, 2024) (Exhibit A). EPA acknowledged receipt of the Petition for Administrative Reconsideration and Request for Administrative Stay on June 3, 2024; however, EPA has not responded substantively to the request for administrative stay.

In accordance with Circuit Rule 18(a)(2), undersigned counsel notified EPA’s counsel on June 25, 2024 that Petitioner planned to file this Motion for Stay. EPA opposes this Motion. Petitioner United States Steel Corporation (Consol. Case No. 1109) supports the Motion for Stay, and Petitioners Fond du Lac Band of Lake Superior Chippewa, Save Lake Superior Association, and Save Our Sky Blue Waters (Consol. Case No. 1107) oppose the Motion.

Dated: June 26, 2024

Respectfully submitted,

/s/ Douglas A. McWilliams

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GLOSSARY

Terms

ACI	Activated Carbon Injection
CAA	Clean Air Act
EPA	Environmental Protection Agency
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NESHAP	National Emission Standards for Hazardous Air Pollutants
RTR	Residual Risk and Technology Review

INTRODUCTION

Pursuant to Federal Rule of Appellate Procedure 18 and Circuit Rule 18, Petitioner Cleveland-Cliffs Inc. (“Cleveland-Cliffs”) moves for a stay of the final rule entitled “National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing,” 89 Fed. Reg. 16,408 (March 6, 2024) (“Final Rule”) promulgated by the United States Environmental Protection Agency and its Administrator, Michael S. Regan (“Respondents” or “EPA”) (Exhibit A). The Final Rule is one of three that severely impact the domestic iron and steel manufacturing industry. Those impacts are so significant that Congressional and United Steelworkers representatives issued letters directly supporting the stay of these rules “to ensure that these regulations both safeguard our environment and preserve production capacity in our strategically important integrated iron and steel sector” and to “prevent . . . job loss [and] a loss of domestic steelmaking capacity.” Letter from Senators Brown, Braun, Casey, Vance, Klobuchar and Young (June 14, 2024) (“June 2024 Senate Letter”, Exhibit B; Letter from United Steelworkers (June 24, 2024) (“Steelworkers Letter”, Exhibit E).

A stay of the Final Rule is essential to protect the public. In EPA’s rush to complete the Final Rule, the Agency ignored concerns that its proposed mercury control measures increase the local deposition of mercury. EPA’s myopic focus on reducing the total pounds of mercury emitted disregarded the evidence that changing

the form of mercury would do more harm than good for people living nearby. While this issue alone warrants a stay, each factor solidly supports issuing a stay including: (1) the likelihood that the moving party will prevail on the merits; (2) the likelihood that the moving party will suffer irreparable harm absent a stay; (3) the prospect that others will be harmed if the Court grants the stay; and (4) the public interest.

Petitioner is likely to succeed on the merits because EPA has acted beyond its authority and issued an arbitrary and capricious rulemaking. The Final Rule was rushed by a consent decree with deadlines for promulgating National Emission Standards for Hazardous Air Pollutant (“NESHAP”) rules to address gaps in hazardous air pollutants (“HAPs”) regulation per the D.C. Circuit’s decision in *La. Env’t Action Network v. EPA*, 955 F.3d 1088 (D.C. Cir. 2020) (“*LEAN*”). EPA incorrectly determined that mercury was “unregulated.” In fact, EPA considered mercury regulation in 2003 and 2020 and rejected it, because it was impossible to set an achievable standard. There are no gaps to fill where EPA made an affirmative determination not to regulate. EPA also exceeded its authority under 42 U.S.C. §7412(d)(6) by finalizing unnecessary revised standards for hydrochloric acid and hydrofluoric acid that were already regulated as acid gases under the original 2003 taconite NESHAP rule using particulate matter as a surrogate. Petitioner is likely to succeed on the merits because the three emission standards in the Final Rule are beyond EPA’s statutory authority to impose.

Even if EPA had authority to regulate one or more of these pollutants, which it does not, the Agency failed to set achievable emission standards in accordance with §7412(d). EPA arbitrarily determined the “average emission limitation achieved by the best performing 5 sources” for mercury could be based on emission tests from furnaces processing taconite iron ore that happened to be mined in areas with low mercury concentrations. Stack testing is an unreliable indicator of achievability because of mined ore’s variable mercury content. Facing this very same dilemma in 2003 and 2020, EPA determined that it was impossible to set an achievable standard for mercury. Without any reasoned explanation, EPA arbitrarily reversed course.

EPA points to no “emission *limitation*” for mercury achieved by these “best performing sources” that would set a “floor” for the maximum achievable control technology determination for taconite processing furnaces under 42 U.S.C. §7412(d)(3)(B). Stack test data is not an emission *limitation*. EPA is therefore obligated under §7412(d)(2) to set the mercury emission standard “taking into consideration the cost of achieving such emission reduction” among other factors. EPA refused to consider the outrageous costs of this rule. Cleveland-Cliffs estimates a cost of approximately ***\$745,975 per pound of mercury removed – far higher than any other NESHAP rule in history.*** See Declaration of Jason Aagenes, ¶14 (“Aagenes Decl.”), attached hereto as Exhibit C (emphasis added). Moreover, if

EPA were to properly consider “non-air quality health and environmental impacts” as required under §7412(d)(2), it would not base mercury emission standards on control technology like activated carbon injection that increases locally deposited particle-bound mercury into nearby lakes and streams – posing increased risk to the very people EPA seeks to protect. Given these fundamental problems with EPA’s rushed Final Rule, Petitioners are likely to succeed on the merits.

The Final Rule will also cause serious irreparable harm to Cleveland-Cliffs without a stay. No taconite furnace has successfully implemented mercury control technology, requiring Cleveland-Cliffs to incur millions of dollars in costs to design and engineer a customized system for each furnace. The costs to develop the control technology will be irreparably lost when the Court determines that the Final Rule does not comply with 42 U.S.C. §7412(d).

Because Petitioner is likely to succeed on the merits that EPA issued an arbitrary and capricious Final Rule beyond its authority under 42 U.S.C. §7412(d); will suffer irreparable harm by incurring millions in unrecoverable costs to implement unproven technology risking increased exposure to mercury for local workers; and granting a stay will actively protect surrounding communities (the public interest) from increased local deposition of mercury, Petitioner respectfully requests a stay of the Final Rule pending judicial review.

BACKGROUND

A. The CAA Statutory Framework for Establishing NESHAPs

Pursuant to 42 U.S.C. §7412, EPA is required to promulgate NESHAPs for each listed category or subcategory of major sources of HAPs. 42 U.S.C. §7412(c)(2); (d)(1). Emissions standards for new and existing sources of HAPs “shall require the maximum degree of reduction in emissions of the” HAPs based on existing technology and whether the standards are “achievable” after considering “the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements.” 42 U.S.C. §7412(d)(2). These emission standards are referred to as maximum achievable control technology (“MACT”) where an “achievable” standard shall “not be less stringent than the emission control that is achieved in practice by the best controlled similar source.” 42 U.S.C. §7412(d)(3). Where there are fewer than 30 existing sources in the source category (as with taconite processing), the MACT “floor” is determined by calculating, “the average emission limitation achieved by the best performing 5 sources.” *Id.* These standards must periodically be reviewed during a residual risk and technology review (“RTR”). 42 U.S.C. §7412(d)(6); (f).

B. EPA Regulation of the Taconite Industry

EPA first promulgated MACT standards for the taconite iron ore processing industry in 2003 and confirmed particulate matter was an appropriate surrogate for

hydrochloric acid and hydrofluoric acid. 68 Fed. Reg. 61,868, 61,884 (Oct. 30, 2003). It also explicitly declined to set a standard for mercury, finding that “[t]here is no way to set a floor standard for mercury that is ‘achievable,’ ... because there is no standard that can be duplicated by different sources or replicable by the same source.” *Id.* at 61,878.

In 2020, EPA published a final rule implementing its RTR of the taconite processing industry. 85 Fed. Reg. 45,476 (July 28, 2020). EPA determined that the level of risk to public health from the taconite industry was acceptable with an ample margin of safety and no revisions to the limits were warranted. *Id.* at 45,478. (“EPA did not identify any developments in practices, processes, or control technologies for affected sources subject to the Taconite Iron Ore Processing NESHAP.”). EPA also considered but did not establish mercury standards pursuant to 42 U.S.C. §7412(d)(6). In 2020, the D.C. Circuit issued its *LEAN* decision, finding that EPA is required to address unregulated HAP emissions when it conducts its eight year RTR. As a result, EPA initiated the current rulemaking to fill what EPA alleges were “gaps” following its 2020 taconite rulemaking, establishing, in part, new MACT standards for mercury and revised emission standards for acid gases.

STANDARD OF REVIEW

The Court must weigh the following four factors when considering a request for a stay: (1) the likelihood that the moving party will prevail on the merits; (2) the

likelihood that the moving party will suffer irreparable harm absent a stay; (3) the prospect that others will be harmed if the Court grants the stay; and (4) the public interest. Circuit Rule 18(a)(1); *Nken v. Holder*, 556 U.S. 418, 434 (2009); *Virginia Petroleum Jobbers Ass’n v. FPC*, 259 F.2d 921, 925 (D.C. Cir. 1958). These “four considerations are factors to be balanced and not prerequisites to be met.” *State of Ohio ex rel. Celebrezze v. Nuclear Regul. Comm’n*, 812 F.2d 288, 290 (6th Cir. 1987); *see also Cuomo v. Nuclear Regul. Comm’n*, 772 F.2d 972, 973-74 (D.C. Cir. 1985) (a stay “may be granted with either a high probability of success and some injury or vice versa.”). All four factors uniformly support a stay of the Final Rule.

ARGUMENT

A. Petitioner Is Likely to Succeed on the Merits

The numerous, fundamental flaws in the Final Rule make it highly likely Petitioner will succeed on the merits. In demonstrating success on the merits the Petitioner need not “be absolutely certain” or “wholly without doubt” but rather “raise[] questions going to the merits so serious, substantial, difficult and doubtful, as to make them a fair ground for litigation and thus for more deliberative investigation.” *Wash. Metro. Area Transit Comm’n v. Holiday Tours, Inc.*, 559 F.2d 841, 844 (D.C. 1977). Under the CAA, an Agency action is unlawful if it is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 42 U.S.C. §7607(d)(9); *see also* 5 U.S.C. §706(2)(A).

1. EPA Fails to Justify Changing its Long-Held Position that Mercury Controls were not Achievable and Specific Hydrochloric Acid and Hydrofluoric Acid Standards were Not Necessary

The Agency's rushed rulemaking was precipitated to meet a consent decree timeline for promulgating rules to address gaps in the regulation of HAPs in accordance with the D.C. Circuit's *LEAN* decision; however, there were no gaps to fill for the taconite industry. 42 U.S.C. §7412(d)(6) requires EPA to review and "revise *as necessary (taking into account developments in practices, processes, and control technologies)*" promulgated emission standards "no less often than every 8 years." (Emphasis added). EPA provided no evidence to support the abrupt change in its long-established regulation of mercury and acid gases.

Under the Administrative Procedure Act, an agency must "examine[] the relevant data and articulate[] a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" *See Cigar Ass'n of Am. v. U.S. Food & Drug Admin.*, 436 F. Supp. 3d 70, 81 (D.D.C. 2020) (quoting *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

EPA failed to provide any rationale for its arbitrary and capricious determination that mercury was "unregulated" despite its previous rulemakings that explicitly investigated, received relevant data, and obtained public comment regarding this HAP. In 2003, EPA considered and then rejected setting a MACT

standard for mercury because “[t]here is no way to set a floor standard for mercury that is ‘achievable,’ because there is no standard that can be duplicated by different sources or replicable by different sources or replicable by the same source.” 68 Fed. Reg. at 61,878. Mercury is a naturally occurring and unpredictable mineral in the taconite ore being processed. EPA confirmed this finding in its 2020 RTR. 85 Fed. Reg. at 45,476. Industry comments confirmed “there have been no developments in technology since that 2020 final rule [for mercury controls] that would support a determination under Section 112(d)(6),” and union representatives noted EPA did not “address all the technical and economic concerns expressed by the industry and our union.” *See* Comments of AISI and U. S. Steel, p. 125 (July 7, 2023), Docket No. EPA-HQ-OAR-2017-0664-0181 (“Industry Comments”); Steelworkers Letter. Despite the Agency’s history of findings and industry’s recent confirmation, EPA provided no explanation for its changed position on the mercury standard.

Furthermore, hydrochloric acid and hydrofluoric acid were regulated as acid gases under the 2003 rulemaking using particulate matter as a surrogate. 68 Fed. Reg. at 61,884. To justify using a surrogate, EPA concluded that the measures used to control particulate matter would also control these acid gases. In 2020, EPA concluded the existing standards adequately protected human health with an ample margin of safety. 85 Fed. Reg. at 45,479. In response to the *LEAN* decision, EPA collected additional stack test data in 2022 that became EPA’s sole justification for

new hydrochloric acid and hydrofluoric acid emission standards under 42 U.S.C. §7412(d)(6).¹ But §7412(d)(6) authorizes EPA to revise emission standards only upon a finding that such a revision is necessary. EPA offers no basis or developments that *necessitate* revision to the acid gas standards already found to protect human health. EPA's only attempt is to broadly state based on the 2022 data "we determined it was more appropriate to directly regulate the HAP of concern than to use a surrogate." Final Rule at 16,417. "More appropriate" is not "necessary".

EPA's silence on its reversal of mercury regulation and inadequate responses to the revised acid gas standards is the epitome of arbitrary and capricious rulemaking and fails to satisfy the Agency's responsibility to articulate a satisfactory explanation for its sudden shift in position. *See FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009) (Kennedy, J. concurring in part and concurring in judgment) (An agency's reason for change should "demonstrate that the new policy rests upon principles that are rational, neutral, and in accord with the agency's proper understanding of its authority.").

2. EPA Erred by Establishing Emission Limits Not Achievable by the Best Performing Sources

Even if EPA was within its statutory authority to issue this Final Rule, which it was not, the Agency failed to meet its statutory obligation to set "achievable"

¹ See Response to Comments, p. 118, Docket No. EPA-HQ-OAR-2017-0664-0310; Final Rule Preamble, Section III.B.2.

emission standards under 42 U.S.C. §7412(d)(2). An emission standard is “achieved” when met “under the worst reasonably foreseeable circumstances.” *Sierra Club v. EPA*, 167 F.3d 658, 665 (D.C. Cir. 1999). EPA has recognized as much in previous rulemakings. *See, e.g.*, 82 Fed. Reg. 40,103, 40,108 (Aug. 24, 2017) (MACT floors must be set at a level that the “best-performing sources can expect to meet ‘every day and under all operating conditions.’”). Congress explained that the standards must be “achievable through application of measures, processes, methods, systems, or techniques, taking into consideration the cost of achieving the reduction, any nonair quality and other air quality related health and environmental impacts, and energy requirements.” *See* H. Rept. 101-490, pt. 1, p. 327 (May 17, 1990).

For the taconite industry, which has less than 30 sources, the MACT “floor” for existing sources cannot be “less stringent” than the “average emission limitation achieved by the best performing 5 sources.” 42 U.S.C. §7412(d)(3)(B). Congress defined “emission limitation” in the CAA as “a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis...” 42 U.S.C. §7602(k). Petitioner is not aware of any “emission limitation” established by EPA or a State that limits the quantity of mercury from taconite furnaces; this is likely due to EPA’s own acknowledgement of the impracticality of establishing an emission limitation for unpredictable,

naturally occurring mercury. Therefore, there is no *average emission limitation* achieved by the best performing five sources for mercury.

Given the variability of mercury in the ore, it is unreasonable for EPA to use random stack test data to determine “best performers” or what such sources can achieve under all reasonably foreseeable conditions. The only rational conclusion is the one EPA previously reached – that there is no emission limitation that comprises the MACT floor under 42 U.S.C. §7412(d)(3). This does not mean that emission standards cannot be set; it means that EPA must use its “beyond-the-floor” authority under §7412(d)(2) to set MACT standards taking into consideration cost and other non-air quality health considerations. The absurd cost of this rule and the unintended adverse impact of increasing locally deposited mercury would have been addressed had EPA acknowledged that stack test data could not be used to set a MACT floor for this source category.

a) EPA Failed to Consider Data Regarding Mercury Variability in Taconite Ore

Even if EPA was correct to set a MACT floor under 42 U.S.C. §7412(d)(3), which it was not, the Agency failed to base the mercury standard on what the best performing sources achieved under all reasonably anticipated operating conditions. EPA’s response to data on the significant natural variability in mercury was to arbitrarily rely on unproven mercury controls. EPA received extensive data from industry on the worst-case levels of mercury that best performing sources could

encounter when processing taconite ore (ranging from 1 ng/g to over 35 ng/g mercury measured in the greenballs fed into the furnaces). Aagenes Decl., ¶ 5. EPA arbitrarily declined to use these data to adjust the mercury limits to account for ore variability. Industry comments proposed a variability factor to account for the variability of mercury emissions. Industry Comments, pp. 89-92. EPA acknowledged the variability but claimed that furnaces may nonetheless achieve the mercury emission limitation by installing ACI with high efficiency wet scrubber technology. Response to Comments, p. 19. However, this unproven control technology will not address variability. Even for the “best performers,” “the amount of mercury coming into the furnaces can be high enough that the 85% control efficiency that EPA attributes to activated carbon injection (“ACI”) using high-efficiency wet scrubbers is insufficient to meet the Final Rule mercury emission limit.” *See* Declaration of Ryan Siats, ¶ 5 (“Siats Decl.”), attached hereto as Exhibit D; *see also* Aagenes Decl., ¶ 6. The shortfall is exacerbated if the actual control efficiency achieved is less than EPA’s optimistic 85% control assumption, which was based on non-taconite applications. As a result, EPA set mercury standards that are not achieved by the best performing sources in violation of 42 U.S.C. §7412(d)(3).

b) EPA Failed to Consider the Infeasibility of Control Technology

To meet the mercury MACT limit in the Final Rule under the full range of potential ore mercury concentrations, indurating furnaces must add mercury control technology. EPA wrongly asserts that ACI with high efficiency venturi scrubbers is available and effective to achieve the mercury emissions standard. None of the indurating furnaces in the U.S., let alone the best-performing ones, have installed ACI or other mercury controls. Aagenes Decl., ¶ 8. EPA incorrectly suggests that technology could be transferred from other industries to indurating furnaces; however, the taconite iron ore processing facilities are unique, and the technology is not necessarily transferrable. Response to Comments at pp. 21-22.

Even if the controls are installed, taconite plants have no certainty as to the efficiency of the technology. None of the stack test data EPA relies on to set the MACT floor for mercury comes from sources using mercury control technology, and the “best performers” are those who happen to have tested when processing low-mercury ore. EPA, therefore, has not met its statutory obligation to set standards for mercury based on what is achieved by these best performing sources under all reasonably expected operating conditions. EPA’s arbitrary determination that an untested control technology will be sufficient to meet the standards for a source is an abuse of Agency authority unlikely to withstand judicial review.

3. EPA Erred by Failing to Consider Cost When Promulgating the Final Rule

Absurd results are a strong indication of arbitrary rulemaking and unlawful departure from Congressional intent. The Final Rule absurdly imposes the highest cost in any NESHAP rulemaking ever: **over \$700,000 per pound** of mercury reduced. Recognizing that is unviable, EPA sidestepped the issue by claiming that it may not consider costs. 89 Fed. Reg. at 16,412. This stems from the Agency's erroneous presumption that it is setting a MACT floor based on stack test data under 42 U.S.C. §7412(d)(3). As discussed above, there are no "emission limitations" for mercury in this source category. EPA cannot create "emission limitations" using stack test data that does not account for variability. As a result, EPA does not have any basis to set a MACT floor.

To set mercury emission standards for taconite sources, EPA must use its authority under §7412(d)(2) to set beyond-the-floor standards. This plain language reading resolves some portion of the absurd result in the Final Rule because §7412(d)(2) *requires* EPA to consider costs and non-air quality health and environmental impacts. 42 U.S.C. §7412(d)(2); see also S. Rep. No. 228, 101st Congress, 1st Sess. 168-169 (1989) ("Cost considerations are reflected in the selection of emissions limitations which have been achieved in practice...").

Considering costs, as Congress instructs, when selecting emission limitations achieved in practice is necessary to effectuate Congressional intent since Congress

never intended for MACT “to drive sources to the brink of shutdown.” H. Rept. 101-490, pt. 1, p. 328; *see also Sierra Club v. EPA*, 479 F.3d 875, 883-84 (D.C. Cir. 2007) (Williams, J., concurring) (recognizing a “paradox” with respect to 42 U.S.C. §7412(d)(2) and (d)(3) where plants could expend so many resources to meet the “floor” that “it would seem that what has been ‘achieved’ under §7412(d)(3) would not be ‘achievable’ under § 112(d)(2) in light of the latter’s mandate to EPA to consider cost.”); 136 Cong. Rec. S16,895-897 (daily ed. Oct. 27, 1990) (statement of Sen. Daniel Patrick Moynihan) (“Environmental programs that prohibit the EPA from taking costs of compliance into account have, more often than not, resulted in deadlock.”). Indeed, it is the CAA’s goal to “protect and enhance” the “Nation’s air resources” to promote the “public health and welfare” and the “productive capacity of its population.” 42 U.S.C. §7401(b)(1).

The Final Rule is arbitrary and capricious as both the unprecedented costs and the environmental impacts weigh against it. EPA’s prior threshold for cost effective rulemaking was \$32,000 per pound of mercury controlled. *See* 89 Fed. Reg. at 16,414. The Final Rule is **ten times** more expensive based on EPA’s cost estimate (\$385,000/pound of mercury removed) and **twenty-three times** more expensive than Cleveland-Cliffs’ engineering-based estimate of \$745,975/pound of mercury removed). *See Developments of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, p. 10, Table 5-3 (Jan. 29, 2024), Docket No. EPA-

HQ-OAR-2017-0664-0307 (“Final Impacts Analysis”); Aagenes Decl., ¶ 14. These extreme costs signal that EPA acted contrary to Congressional intent when setting mercury emission limits.

Under 42 U.S.C. §7412(d)(2), EPA must also consider “any non-air quality health and environmental impacts and energy requirements.” Here, EPA failed to consider the adverse local effect of the control technology (ACI) the Agency used to justify the achievability of the mercury emission standard. ACI changes the form of mercury from elemental, which travels long distances, to particle-bound, which deposits locally. In its justification, EPA presumes ACI with high efficiency scrubbers can remove up to 85% of the particle-bound mercury generated. However, the 15% of particle-bound mercury emitted is 13.4 times greater than the particle-bound mercury emitted without ACI. The net result would be to increase the amount of mercury deposited into local rivers and lakes, creating non-air quality health and environmental impacts that EPA is required to consider under 42 U.S.C. §7412(d)(2). Siats Decl., ¶ 10. Furthermore, the Final Rule will lead to increases in energy consumption, waste production, and wastewater production. *See* Final Impacts Analysis, p. 17, Table 6-1. EPA should have considered these extreme costs and negative environmental and energy impacts because “[r]easoned decisionmaking is not a dispensable part of the administrative machine that can be

blithely discarded even in the pursuit of a laudable regulatory goal.” *See Portland Cement Ass’n v. EPA*, 665 F.3d 177, 188 (D.C. Cir. 2011).

B. Petitioner Will Suffer Irreparable Harm Without a Stay

To demonstrate irreparable harm, parties seeking a stay must show that the injury in question “is certain and great [and] of such *imminence* that there is a ‘clear and present’ need for equitable relief to prevent irreparable harm.” *Wis. Gas. Co. v. FERC*, 758 F.2d 669, 674 (D.C. Cir. 1985) (first quoting *Conn. v. Mass.*, 282 U.S. 660 (1931) and then *Ashland Oil, Inc. v. FTC*, 409 F. Supp. 297, 307 (D.D.C. 1976), *aff’d*, 548 F.2d 977 (D.C. Cir. 1976) (citations and internal quotations omitted)). Evaluating such injuries should consider “the significance of the change from the *status quo* which would arise in the absence of a stay, as well as likelihood of occurrence of the claimed injury.” *Shays v. Fed. Election Comm’n*, 340 F. Supp. 2d 39 (D.D.C. 2004) (quoting *Judicial Watch v. Nat’l Energy Policy Dev. Group*, 230 F. Supp. 12, 15 (D.D.C. 2002)).

Courts have found that “‘complying with a regulation later held invalid almost *always* produces the irreparable harm of nonrecoverable compliance costs.’” *Texas v. EPA*, 829 F.3d 405, 433 (5th Cir. 2016) (quoting *Thunder Basin Coal Co. v. Reich*, 510 U.S. 200, 220-221 (1994) (Scalia, J., concurring in part and in judgment)) (emphasis original). In *Texas*, petitioners challenged the validity of a CAA rulemaking governing power plants. The Court found irreparable harm because

“[t]he tremendous costs of the emissions controls impose a substantial financial injury,” including billions of dollars in costs of control equipment, shutdowns, and lost union jobs. *Id.* The Court determined that “[n]o mechanism here exists for the power companies to recover the compliance costs they will incur if the Final Rule is invalidated on the merits.” *Id.* at 434. This type of financial loss is beyond ordinary course-of-business economic loss but rather the type of irreparable injury ““where no ‘adequate compensatory or other corrective relief will be available at a later date, in the ordinary course of litigation’” and ““where the loss threatens the very existence of the movant’s business.”” *Id.* (internal citations omitted); *see also Wis. Gas Co.*, 758 F.2d at 674.

Cleveland-Cliffs will suffer irreparable harm if the Final Rule is ultimately deemed invalid based on outrageous and unrecoverable implementation and compliance costs. EPA failed to heed industry’s warning that neither party knows the level of control that ACI with high efficiency wet scrubbers will achieve in practice. Aagenes Decl., ¶ 8. Each facility only has a three-year window to determine the appropriate control technology, conduct pilot testing, and initiate engineering and design of a control system that meets the unique challenges of a furnace. The first two stages alone, technology assessment and pilot testing, could take two years to complete and cause significant cost expenditure and operational disruption with no guarantee of success. Such assessment and testing must begin

immediately at the cost of at least \$4 million *per facility*. *Id.* at ¶ 9. There is no guarantee the pilot testing will result in a solution and studies indicate it will increase the local deposition of mercury putting local workers at increased risk of exposure. *Siats Decl.* at 11-12.

The third stage, engineering and design, must begin *immediately* upon conclusion of pilot testing, because the design, engineering, fabrication, installation, and optimization of any selected control technology will take at least two years to complete. *Id.* at ¶ 10. Taconite furnaces operate 24/7, requiring coordination for installation of mercury or acid gas control technology to occur during a planned major maintenance outage (usually once per year). *Id.* at ¶ 12. Without a stay, the compressed schedule for developing and implementing the control technology may require additional outages at a cost ranging from approximately \$300,000 to \$1,300,000 *per day* (a total \$10-35 million *per facility* in lost production). *Id.* These costs will not be recoverable if this Court determines that EPA exceeded its authority in issuing a mercury limit or changes the standard to account for variability of mercury in ore. *Id.* at ¶ 11. These millions of dollars in costs incurred in the first year while pursuing judicial review would be wasted and unrecoverable, which constitutes irreparable harm supporting a stay of the Final Rule. This concern was echoed in the Senate Letter supporting a stay of the Final Rule. June 2024 Senate Letter (“Absent a stay, the steel industry will be forced to proceed with planning and

spending for unproven technologies and work practices while the final provisions of the rules remain uncertain.”).

C. Staying the Rule During the Pendency of Reconsideration Does Not Significantly Injure Other Parties and is in the Public Interest

The significant injury to other parties and public interest factors are appropriately considered together here. *See Nken*, 556 U.S. at 435 (explaining that “harm to the opposing party and the public interest, merge when the Government is the opposing party.”). Factors considered include (1) the safety of surrounding populations; (2) the protection of vulnerable populations; (3) determination of the proper balance between irreparable harm to such populations and economic burdens to petitioners; and (4) the views of “Congress, the elected representatives of the entire nation.” *See, e.g., Nat’l Ass’n of Farmworkers Org. v. Marshall*, 628 F.2d 604, 616 (D.C. Cir. 1980); *Cuomo*, 772 F.2d at 978. A stay of the Final Rule during the pendency of judicial review will not harm the public since no new affected facilities are anticipated in this source category.

A stay is in the public’s interest because of the likely increase in local deposition of mercury resulting from the immediate pilot testing of ACI. When ACI is introduced, studies show that particle-bound mercury significantly increases, and elemental mercury decreases as the ACI converts elemental mercury to particle-bound mercury for capture. *Siats Decl.*, ¶ 7. EPA’s estimate of a maximum control efficiency of 80-85% with ACI and a high efficiency scrubber is inaccurate. *Id.* at ¶

8. The expected control efficiency during pilot testing is expected to be significantly lower - between 48-82%. *Id.* Even assuming EPA's estimate is correct, 15-20% of the particle-bound mercury during pilot testing will be getting past control equipment and into the environment. *Id.* ***Use of ACI may result in a 13.4 times net increase in particle-bound mercury.*** *Id.* at ¶ 10 (Emphasis added). Particle-bound mercury is known to deposit locally (within 50 miles) whereas elemental mercury remains in the atmosphere for long periods of time and travels hundreds/thousands of miles before being deposited. *Id.* at ¶ 11. Thus, the pilot testing that will proceed without a stay of the Final Rule will likely lead to significantly higher amounts of deposited mercury in nearby lakes and rivers. *Id.* at ¶ 12.

42 U.S.C. §7412 is intended to reduce emissions and mitigate the associated risk to human health. It is contrary to this statutory purpose for EPA to set an emission standard that increases local mercury emissions. The unintended consequence of EPA's rushed Final Rule is that the people living near taconite furnaces will be exposed to more mercury deposited in lakes and streams with ACI than without it. Therefore, a stay of the Final Rule is in the public's interest.

CONCLUSION

For the reasons stated above, Cleveland-Cliffs respectfully requests that this Court grant its Motion to Stay the Final Rule pending the outcome of judicial review.

Respectfully submitted,

Dated: June 26, 2024

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CERTIFICATE OF COMPLIANCE

I certify that Petitioner Cleveland-Cliffs Inc.'s Motion for Stay of the Final Rule complies with the type-volume limitation of Fed. R. App. P. 27(d)(2)(A) because it contains 5,188 words, excluding the parts exempted by Fed. R. App. P. 32(f).

I also certify that this document complies with the requirements of Fed. R. App. P. 27(d)(1)(E), including the typeface requirements of 32(a)(5) and the type-style requirements of 32(a)(6), because it has been prepared in a proportionally spaced typeface using Microsoft Word in Times New Roman, 14-pt font.

Dated: June 26, 2024

Respectfully submitted,

/s/ Douglas A. McWilliams

Douglas A. McWilliams

Counsel for Petitioner Cleveland-Cliffs Inc.

CERTIFICATE OF SERVICE

I hereby certify that on June 26, 2024, I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system. Participants in the case who are registered CM/ECF users will be served by the CM/ECF system.

/s/ Douglas A. McWilliams

Douglas A. McWilliams

Counsel for Petitioner Cleveland-Cliffs Inc.

**Exhibit A: NESHAP Taconite Iron Ore Processing
Final Rule (March 6, 2024)**

**ENVIRONMENTAL PROTECTION
AGENCY**

40 CFR Part 63

[EPA-HQ-OAR-2017-0664; FRL-5925.1-01-OAR]

RIN 2060-AV58

**National Emission Standards for
Hazardous Air Pollutants: Taconite
Iron Ore Processing**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is finalizing amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Taconite Iron Ore Processing. Specifically, the EPA is finalizing maximum achievable control technology (MACT) standards for mercury (Hg) and establishing revised emission standards for hydrogen chloride (HCl) and hydrogen fluoride (HF). This final action ensures that emissions of all hazardous air pollutants (HAP) emitted from the Taconite Iron Ore Processing source category are regulated.

DATES: This final rule is effective March 6, 2024. The incorporation by reference (IBR) of certain publications listed in the rule is approved by the Director of the Federal Register (FR) as of March 6, 2024. The incorporation by reference of certain other material listed in the rule was approved by the Director of the Federal Register as of October 26, 2020.

ADDRESSES: The EPA established a docket for this action under Docket ID No. EPA-HQ-OAR-2017-0664. All documents in the docket are listed on the <https://www.regulations.gov/> website. Although listed, some information is not publicly available, e.g., Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and is publicly available only in hard copy. With the exception of such material, publicly available docket materials are available electronically in <https://www.regulations.gov/> or in hard copy at the EPA Docket Center, Room 3334, WJC West Building, 1301 Constitution Avenue NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and

the telephone number for the EPA Docket Center is (202) 566-1742.

FOR FURTHER INFORMATION CONTACT: For questions about this final action, contact David Putney, Sector Policies and Programs Division (D243-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, 109 T.W. Alexander Drive, P.O. Box 12055, Research Triangle Park, North Carolina, 27711; telephone number: (919) 541-2016; email address: putney.david@epa.gov.

SUPPLEMENTARY INFORMATION:

Preamble acronyms and abbreviations. Throughout this document the use of “we,” “us,” or “our” is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

ACI activated carbon injection
BTF beyond-the-floor
CAA Clean Air Act
CBI Confidential Business Information
CEMS continuous emission monitoring system
CFR Code of Federal Regulations
D.C. Circuit United States Court of Appeals for the District of Columbia Circuit
DSI dry sorbent injection
EJ environmental justice
EPA Environmental Protection Agency
ESP electrostatic precipitator
FR Federal Register
HAP hazardous air pollutant(s)
HCl hydrochloric acid
HF hydrogen fluoride
Hg mercury
ICR information collection request
km kilometer
LEAN Louisiana Environmental Action Network
lb/LT pounds of HAP (i.e., Hg, HCl, or HF) emitted per long ton of pellets produced
MACT maximum achievable control technology
MWh/yr megawatt-hours per year
MPCA Minnesota Pollution Control Agency
NAICS North American Industry Classification System
NESHAP National Emission Standards for Hazardous Air Pollutants
ng/g nanograms per gram
NTTAA National Technology Transfer and Advancement Act
OAQPS Office of Air Quality Planning and Standards
OMB Office of Management and Budget
PM particulate matter
PRA Paperwork Reduction Act
RFA Regulatory Flexibility Act
RTR residual risk and technology review
tpy tons per year
UPL upper prediction limit
µg/Nm³ microgram per normal cubic meter
UMRA Unfunded Mandates Reform Act
VCS voluntary consensus standards

Organization of this document. The information in this preamble is organized as follows:

- I. General Information
 - A. Does this action apply to me?
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- II. Background
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 - C. What changes did we propose for the Taconite Iron Ore Processing source category?
- III. What is the rationale for our final decisions and amendments for the Taconite Iron Ore Processing source category?
 - A. MACT Standards for Mercury
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 - C. What other amendments are we finalizing?
 - D. What are the effective and compliance dates for the mercury, HCl, and HF emission standards?
- IV. Summary of Cost, Environmental, and Economical Impacts
 - A. What are the affected sources?
 - B. What are the air quality impacts?
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- V. Statutory and Executive Order Reviews
 - A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
 - B. Paperwork Reduction Act (PRA)
 - C. Regulatory Flexibility Act (RFA)
 - D. Unfunded Mandates Reform Act (UMRA)
 - E. Executive Order 13132: Federalism
 - F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
 - G. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51
 - H. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations and Executive Order 14096: Revitalizing Our Nation's Commitment to Environmental Justice for All
 - I. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks
 - J. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
 - K. Congressional Review Act (CRA)

I. General Information

A. Does this action apply to me?

Table 1 of this preamble lists the NESHAP and associated regulated industrial source category that is the

subject of this final rule. Table 1 is not intended to be exhaustive, but rather provides a guide for readers regarding the entities that this final action is likely to affect. The final standards are directly applicable to the affected sources. Federal, state, local, and Tribal government entities are not affected by this final action. As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air*

Act Amendments of 1990 (see 57 FR 31576; July 16, 1992) and *Documentation for Developing the Initial Source Category List, Final Report* (see EPA-450/3-91-030; July 1992), the Taconite Iron Ore Processing source category includes any facility engaged in separating and concentrating iron ore from taconite, a low-grade iron ore to produce taconite pellets. The source category includes, but is not

limited to, the following processes: liberation of the iron ore by wet or dry crushing and grinding in gyratory crushers, cone crushers, rod mills, and ball mills; pelletizing by wet tumbling with a balling drum or balling disc; induration using a straight grate or grate kiln indurating furnace; and finished pellet handling.

TABLE 1—NESHAP AND SOURCE CATEGORIES AFFECTED BY THIS FINAL ACTION

Source category	NESHAP	NAICS code ¹
Taconite Iron Ore Processing	40 CFR part 63, subpart RRRRR	21221

¹ North American Industry Classification System.

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this action is available on the internet. Following signature by the EPA Administrator, the EPA will post a copy of this final action at <https://www.epa.gov/stationary-sources-air-pollution/taconite-iron-ore-processing-national-emission-standards-hazardous>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the final rule and key technical documents at this same website.

C. Judicial Review and Administrative Reconsideration

Under Clean Air Act (CAA) section 307(b)(1), judicial review of this final action is available only by filing a petition for review in the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) by May 6, 2024. Under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by the EPA to enforce the requirements.

Section 307(d)(7)(B) of the CAA further provides that only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. This section also provides a mechanism for the EPA to reconsider the rule if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within the period for public comment or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the

outcome of the rule. Any person seeking to make such a demonstration should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, WJC South Building, 1200 Pennsylvania Ave. NW, Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW, Washington, DC 20460.

II. Background

A. What is the statutory authority for this action?

In the *Louisiana Environmental Action Network v. EPA* (“LEAN”) decision issued on April 21, 2020, the D.C. Circuit held that the EPA has an obligation to address regulatory gaps, such as missing standards for HAP known to be emitted from a major source category, when the Agency conducts the 8-year technology review required by CAA section 112(d)(6).¹ Emissions data collected from the exhaust stacks of existing taconite indurating furnaces indicate that Hg is emitted from the source category. However, Hg emissions from the Taconite Iron Ore Processing source category are not regulated under the existing Taconite Iron Ore Processing NESHAP. To meet the EPA’s obligations under CAA section 112(d)(6), in this action, the EPA is establishing new standards for Hg emissions from the Taconite Iron Ore Processing source category that reflect MACT for Hg emitted from taconite indurating

furnaces, pursuant to CAA sections 112(d)(2) and (3).

The EPA is also finalizing revised standards for HCl and HF pursuant to CAA section 112(d)(6). CAA section 112(d)(6) requires the EPA to review standards promulgated under CAA section 112 and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less often than every 8 years.

B. What is the source category and how does the current NESHAP regulate its HAP emissions?

The Taconite Iron Ore Processing NESHAP (codified at 40 Code of Federal Regulations (CFR) part 63, subpart RRRRR) applies to each new or existing ore crushing and handling operation, ore dryer, pellet indurating furnace, and finished pellet handling operation at a taconite iron ore processing plant that is (or is part of) a major source of HAP emissions. Taconite iron ore processing plants separate and concentrate iron ore from taconite, a low-grade iron ore containing 20- to 25-percent iron, and produce taconite pellets, which are 60- to 65-percent iron. The current NESHAP includes particulate matter (PM) limits that, prior to this final action, served as a surrogate for particulate metal HAP, HCl, and HF emissions. The existing PM emissions limits were summarized in table 2 of the proposal (see 88 FR 30917; May 15, 2023). The current NESHAP does not presently include standards for Hg emissions.

There are currently eight taconite iron ore processing plants in the United States: six plants are located in Minnesota and two are located in Michigan. This includes the Empire Mining facility in Michigan, which maintains an air quality permit to operate, but has been indefinitely idled since 2016 and is therefore not included

¹ *Louisiana Environmental Action Network v. EPA*, 955 F.3d 1088 (D.C. Cir. 2020) (“LEAN”).

in any analyses (e.g., estimates of emissions or cost impacts) associated with this final rulemaking.

C. What changes did we propose for the Taconite Iron Ore Processing source category?

On May 15, 2023, the EPA published a proposal in the **Federal Register** to set MACT standards for Hg emissions from indurating furnaces in the source category and to revise the existing emission standards for HCl and HF for indurating furnaces. The PM emission limits in the current NESHAP will continue to serve as surrogate for particulate metal HAP (e.g., nickel and arsenic). The EPA proposed that compliance with the emission standards for Hg, HCl, and HF be demonstrated through operating limits, monitoring, and performance testing. We also proposed minor changes to the electronic reporting requirements found in 40 CFR 63.9641(c) and 40 CFR 63.9641(f)(3) to reflect new procedures for reporting CBI that included an email address for owners and operators to electronically submit compliance reports containing CBI to the Office of Air Quality Planning and Standards (OAQPS) CBI Office. Finally, we requested comment on our evaluation that the addition of 1-bromopropane (1-BP) to the CAA section 112 HAP list would not impact the Taconite Iron Ore Processing NESHAP because, based on our knowledge of the source category and available emissions data, 1-BP is not emitted from this source category.

III. What is the rationale for our final decisions and amendments for the Taconite Iron Ore Processing source category?

For each issue, this section provides a description of what we proposed and what we are finalizing, a summary of key comments and responses, and the EPA's rationale for the final decisions and amendments. For all comments not discussed in this preamble, comment summaries and the EPA's responses can be found in the document, *Summary of Public Comments and Responses for Proposed Amendments to the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing*, which is available in the docket for this action.

A. MACT Standards for Mercury

1. What did we propose for the Taconite Iron Ore Processing source category?

As described in the May 15, 2023, proposal (88 FR 30917), we proposed MACT standards for Hg for new and existing indurating furnaces that

reflected the MACT floor level of control, based on the 99-percent upper prediction limit (UPL), of 1.4×10^{-5} pounds of Hg emitted per long ton of taconite pellets produced (lb/LT) for existing sources and 3.1×10^{-6} lb/LT for new sources. We also proposed an emissions averaging compliance alternative that would allow taconite iron ore processing facilities with more than one existing indurating furnace to comply with a Hg emissions limit of 1.26×10^{-5} lb/LT by averaging emissions on a production-weighted basis for two or more existing indurating furnaces located at the same facility. In the proposal, we explained that the emissions averaging compliance alternative reflected a 10 percent adjustment factor to the proposed MACT floor standard and that we expected this 10 percent adjustment factor would result in Hg reductions greater than those achieved by compliance with the MACT floor on a unit-by-unit basis. We proposed that compliance with the Hg MACT standards would be demonstrated through initial and periodic performance testing (completed at least twice per 5-year permit term), establishing operating limits for each control device used to comply with the Hg standards, and installing and operating continuous parameter monitoring systems (CPMS) to ensure continuous compliance with the Hg standards.

For the proposal, in addition to calculating the MACT floor, pursuant to CAA section 112(d)(2), we also assessed more stringent "beyond-the-floor" (BTF) regulatory options for the Hg MACT standards. As discussed in the proposal (88 FR 30923), unlike the MACT floor's minimum stringency requirements, the EPA must examine various impacts of the more stringent BTF regulatory options in determining whether MACT standards are to reflect BTF requirements. These impacts include the cost of achieving additional emissions reductions beyond those achieved by the MACT floor level of control, any non-air quality health and environmental impacts that would result from imposing controls BTF, and energy requirements of such BTF measures. If the EPA concludes that the more stringent regulatory options have unreasonable impacts, the EPA selects the MACT floor level of control as MACT. However, if the EPA concludes that impacts associated with BTF levels of control are reasonable in light of additional HAP emissions reductions achieved, then the EPA selects those BTF levels as MACT.

We considered BTF regulatory options that were 10, 20, 30, and 40 percent more stringent than the MACT floor and calculated the capital and annual costs as well as secondary impacts associated with each option. For a detailed discussion of our analysis of emissions reductions and potential secondary impacts developed for the proposal, please see the memorandum, *Development of Impacts for the Proposed Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action. We proposed that requiring new or existing furnaces to meet BTF emission limits was not reasonable based on the estimated capital and operating costs and cost-effectiveness.

2. What comments did we receive on the proposed Hg MACT standards, and what are our responses?

Comment: Industry commenters provided data that they indicated corrected the Hg stack test data submitted in response to the CAA section 114 Information Collection Request (ICR) sent to the taconite facilities in 2022 for the Tilden, UTAC, Keetac, and Hibbing facilities that were used when calculating the baseline emissions, the MACT floor standards, and the emission reductions. The commenters indicated that the error in the Keetac emissions data resulted in an overestimate of both the baseline emissions and the estimated emission reductions that could be achieved if the proposed Hg standards were adopted.

Response: In response to these comments and revised data provided, the EPA reviewed the Hg emissions data that we used in the proposal to calculate baseline Hg emissions. At proposal we estimated total baseline Hg emissions were 1,010 pounds per year. The EPA confirmed that errors were present in the Hg emissions data used to calculate the baseline emissions. We revised the emissions data as appropriate based on the emissions data provided by industry commenters and recalculated the baseline emissions, MACT floor emission limits, emission reductions, and estimated capital and annual costs accordingly for the final rule. The updates to the emissions data did not impact the MACT floor limit for existing sources but did decrease the baseline emissions and the expected Hg emissions reductions for existing sources. The updates to the emissions data changed the Hg standard for new sources from 3.1×10^{-6} lb/LT to 2.6×10^{-6} lb/LT. The updated baseline Hg emissions for the final rule are estimated to be 751 pounds per year (0.38 tons per year (tpy)). We estimate

that unit-by-unit compliance with the final MACT floor limit will result in a reduction of 232 pounds of Hg emissions per year and a reduction of 247 pounds per year of Hg emissions if all facilities with more than one existing taconite furnace elect to demonstrate compliance through the emissions averaging compliance alternative. Our analysis is presented in detail in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*. The updated emissions data used in the revised calculations for the final rule are summarized in a separate memorandum, *Final Emissions Data Collected in 2022 for Indurating Furnaces Located at Taconite Iron Ore Processing Plants*. These documents are available in the docket for this action.

Comment: One commenter recommended the proposed limit for the emissions averaging compliance alternative for existing sources should have the same number of significant figures as the MACT floor limit. Instead of 1.26×10^{-5} lb/LT, the limit for the emissions averaging compliance alternative for existing sources would be rounded up to 1.3×10^{-5} lb/LT.

Response: The EPA agrees with the commenter that the Hg emission limit for the emissions averaging compliance option should have only two significant figures. The limit cannot have more significant figures than Hg MACT floor from which it was derived, which has only two significant figures. As recommended by commenters, the Hg emission limit in the final rule is revised to 1.3×10^{-5} lb/LT so that the limit for the emissions averaging compliance alternative has the same number of significant figures as the other Hg limits finalized in this rulemaking.

We estimate that the final Hg emissions averaging compliance alternative will reduce Hg emissions by 247 pounds per year, if Hibbing and Minntac elect to demonstrate compliance through the emissions averaging compliance alternative by each facility installing mercury controls on two furnaces and averaging the emissions across all furnaces located at their facility. We expect that, should Hibbing and Minntac elect to demonstrate compliance through the emissions averaging compliance alternative, the Hg reductions would still be greater than the reductions we anticipate would be achieved through unit-by-unit compliance with the MACT floor level of control. For additional details, please refer to section IV.A.1 of the proposal preamble (88 FR 30925). More information on the final Hg

standards, including the detailed cost estimates for the Hg emissions averaging compliance alternative, may be found in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action.

Comment: Commenters recommended that the proposed 40 CFR 63.9621(d)(4) and 63.9631(j) be revised to allow the mass of taconite pellets produced to be determined indirectly through calculation based on industry standards. They noted that pellet mass is measured prior to offsite shipment and later “trued-up” at the end of each month.

Response: The EPA agrees that taconite pellet production can be determined indirectly through calculation using bulk density and volume measurements. We have revised the language in 40 CFR 63.9621(d)(4) and 63.9631(j) to allow the weight of taconite pellets produced to be determined either by direct measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements.

Comment: Industry commenters stated that the capital and operating costs for Hg controls were underestimated in the proposal and that the estimated capital costs were significantly below cost estimates developed by industry. The commenters thought the retrofit factor of 1.2 used by the EPA failed to adequately account for the additional costs incurred when retrofitting an existing emission unit with new controls. They recommended the EPA use the capital costs prepared by industry and apply a retrofit factor of 1.5 or 1.6 with a contingency factor of 30 percent to account for the higher costs for retrofit projects. The commenters also stated that the total annual costs were underestimated because the EPA had underestimated costs for activated carbon, electricity, and waste disposal and used an interest rate that was too low. Industry commenters also stated that currently, some plants recycle iron particles collected by their particulate emission control device, but that the presence of activated carbon would create product quality issues and make recycling no longer possible. The commenters stated the EPA had not accounted for the loss of product and increased waste disposal costs in the cost estimates prepared for the proposal. The commenters provided cost estimates for the Keetac, Minorca, Minntac and UTAC facilities that included estimates of the amount of product they assert would be lost if scrubber solids are not recycled back

through the process and the estimated price for the lost product. The commenters also disagreed with the estimated labor costs, arguing that both the number of operator hours and hourly labor rates were too low.

Response: For the final rule, the EPA has updated the capital and annual costs to reflect the costs in 2023 dollars using an interest rate of 8.5 percent and updated unit prices for activated carbon, utilities, and labor. The EPA also assessed the commenters concerns that ACI would prevent plants from recovering iron particles collected with other solids by their particulate emission control device. Based on the information provided by industry, ten indurating furnaces currently collect the solids from their particulate control devices and recycle the solids back to the production process, thereby recovering valuable iron product. Commenters said plants using ACI would not be able to continue to recover iron in this way because carbon would impact the quality of their product. Commenters said EPA should account for costs due to the loss of product and increased cost of waste disposal of the unrecoverable product. Industry provided estimates of the amount of iron that would be lost for the furnaces located at the UTAC, Minorca, and Minntac plants. We used this data to estimate iron losses for the Hibbing plant and multiplied the estimated iron losses for each furnace by the current market price of iron to estimate the costs associated with the loss iron product. The updated cost estimates that we are using for the final rule, including the basis for the 8.5 percent interest rate, are documented in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action.

The EPA reviewed the capital cost information submitted by industry during the comment period and found the information submitted consisted of a total capital cost for equipment. However, no breakdown was provided from which we could ascertain what was included in the cost and little information was provided on how the costs were derived. The lack of detail in the cost estimates combined with little supporting documentation made it impossible for the EPA to assess the accuracy of the cost estimates submitted by industry. Industry commenters indicated that the estimated equipment costs for the air pollution control equipment for the Minorca and UTAC facilities they submitted were estimated using cost data from another project at a different facility and scaled using the

‘rule of six-tenths.’ The ‘rule of six-tenths’ is a method by which equipment costs are estimated as the cost of a known project multiplied by a capacity factor raised to the power of six-tenths. The ‘rule of six-tenths’ can provide a reasonable order of magnitude estimate of equipment costs where the capacities of the two systems are reasonably similar. However, the commenters did not identify the facility or provide a detailed description of the project to which they are applying the rule of six-tenths. Commenters also failed to provide a detailed breakdown of the equipment costs used in the ‘rule of six-tenths’ estimate. Without additional information, the EPA was unable to assess the accuracy of the equipment costs provided by commenters. Therefore, we are not making any changes based on this information.

We disagree with the commenters’ recommendations that a retrofit factor of 1.5 or 1.6 should be applied to the capital costs with a 30-percent contingency factor. Retrofit factors account for costs directly related to the demolition, fabrication, and installation of the control system. For the venturi scrubbers we included the 3-percent contingency factor and applied a retrofit factor of 1.2 to the estimate of the total capital investment for new construction. The EPA’s *Air Pollution Control Cost Manual* indicates a 3-percent contingency factor is considered appropriate for a mature air pollution control technology and states that retrofit costs are “generally minimal” for venturi scrubbers because of their small footprint.² While we agree with the commenters that retrofits may, in some cases, be more expensive than new construction, the 1.2 retrofit factor used in the cost estimates provides a reasonable increase to account for the higher cost associated with retrofit projects that involve replacing an existing venturi scrubber with a high-efficiency venturi scrubber, where infrastructure (e.g., water and power supply) already exist. The retrofit factor applied does not have a significant impact on the total annual costs. If a retrofit factor of 1.6 is applied, as recommended by the commenters, the total annual costs would increase by about 2 percent (less than \$2 million for replacing the venturi scrubbers on all 11 furnaces with mercury emissions

currently exceeding the MACT floor. We did not apply a retrofit factor to the capital costs for the activated carbon injection (ACI) system because the costs were estimated using a methodology developed by Sargent & Lundy for the EPA’s Integrated Planning Model (IPM).³ The IPM methodology is based on costs for retrofitting ACI on utility boilers and therefore already represents the average or typical costs for ACI retrofits.

A contingency factor is reserved for costs that could incur a reasonable but unanticipated increase but are not directly related to the demolition, fabrication, and installation of the system. Retrofit and contingency factors can be difficult to assess as they vary based on site-specific characteristics. Nevertheless, the EPA considers the methodology used to calculate capital and total annual costs to be a reasonable approach to estimating costs for the purposes of this rulemaking. We note that the EPA may not consider costs in determining the MACT floor, and that the cost estimates for the BTF control options identified for Hg emissions were determined to be greater than the level historically found to be cost-effective for controlling Hg emissions.

Comment: Industry commenters noted that the Hg concentrations in taconite ore deposits vary widely both within each mine and between mines, which in turn affects Hg emissions. The commenters said the primary source of Hg emissions from indurating furnaces is from the Hg contained in the greenballs (i.e., unfired taconite iron ore pellets). The commenters provided Hg concentration data for greenballs from each taconite iron ore processing facility and recommended that the EPA revise the proposed Hg limits for new and existing furnaces to address the variability inherent in the Hg concentration of greenballs. They suggested the EPA use the data to develop a raw material variability factor that could be used when calculating the MACT floor limits for Hg. The commenters noted that the EPA had accounted for variability in the Hg concentration of raw materials when calculating the MACT floor limits for other NESHAP.

Response: The EPA reviewed the Hg data submitted by industry and determined the data were not adequate for us to calculate a variability factor for

use in deriving the MACT floor limits. This decision was based on several factors. First, the number of measurements submitted for each facility varied considerably—from as few as three measurements for the best performing furnace at Northshore (including two measurements on the same day) to as many as 948 measurements for the UTAC plant. The very limited data provided for Northshore is a concern because Northshore’s stack test data showed that their furnace was the best performing (i.e., had the lowest emissions of Hg). The data provided for Northshore are insufficient to evaluate temporal variability in the Hg content of the greenballs at Northshore because the data consist of measurements made during only two greenball sampling episodes: one in January 1997 and the other in November 2001. Second, much of the data submitted could not be validated because the commenters did not provide the laboratory reports for the test results. For example, the UTAC facility provided 948 measurements of the Hg concentration of the greenballs at their plant but submitted none of the laboratory reports needed to corroborate their data. Laboratory reports are needed to determine whether appropriate methods were used for sample collection and analysis, to confirm appropriate quality assurance and quality control measures were taken, and to check that the values submitted are accurate. In total, we were unable to confirm the concentration values for over 87 percent of the measurements submitted because we lacked the laboratory reports. Third, the samples were collected at irregularly spaced intervals, often with large gaps in time during which no samples were collected. These sampling intervals varied from as little as a few days to multiple years. In cases where samples were collected over a period of several consecutive months, the measurements were not collected at consistent intervals. Ideally, the samples would be collected at representative intervals with supporting documentation of the sample collection and analysis, to avoid bias in the dataset. Finally, the data submitted for some facilities included measurements that we determined to be statistical outliers. For example, we identified two statistical outliers in the Tilden dataset, where in one case the Hg content of greenballs increased from 1.4 nanograms per gram (ng/g) on July 6, 2022, to 15.0 ng/g on July 15, 2022, before decreasing to 1.2 ng/g on July 22, 2022. The presence of statistical outliers does not necessarily mean the

² EPA’s *Control Cost Manual* provides guidance for the development of capital and annual costs for air pollution control devices. The *Control Cost Manual* focuses on point source and stationary area source air pollution controls. A copy of the manual is available at <https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations/cost-reports-and-guidance-air-pollution>.

³ Sargent & Lundy, LLC, *IPM Model—Updates to Cost and Performance for APC Technologies Mercury Control Cost Development Methodology*, January 2017. A copy of this document is available at https://www.epa.gov/sites/default/files/2018-05/documents/attachment_5-6_hg_control_cost_development_methodology.pdf.

measurements are incorrect. However, statistical outliers raise concerns over the accuracy and representativeness of the measurements, particularly where no explanation for the anomaly is available.

Comment: Some commenters requested EPA Method 30B be included as an acceptable alternative test method for measuring Hg emissions from indurating furnaces.

Response: In response to the commenters' request, we reviewed EPA Method 30B and determined that this method is appropriate for measuring Hg emissions from indurating furnaces. In the final rule, we have updated the list of approved methods for Hg measurement to include EPA Method 30B, in addition to the proposed methods. The final rule allows owners and operators to use EPA Methods 29 or 30B in 40 CFR part 60, appendix A-8, and the voluntary consensus standard (VCS), ASTM D6784-16, *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)*.

Comment: Industry commenters expressed concern that the proposed Hg stack testing volumes for performance testing to demonstrate compliance with the proposed Hg standards were too large such that each test run would require too much time to complete. They recommended that smaller test volumes would be appropriate and suggested that the test volume be small enough to allow each test run to be completed within 60 minutes.

Response: In response to the commenters' concerns regarding the stack testing volumes and duration of each test run, the EPA reconsidered the proposed sample volume requirements and revised the performance testing requirements in the final rule to require a minimum sample volume of 1.7 dry standard cubic meters (dscm) (60 dry standard cubic feet (dscf)) for EPA Method 29 and ASTM D6784-16, instead of the 3 dscm sample volume we proposed. The 1.7 dscm sample volume will allow test runs to be completed in approximately 2 hours while still ensuring that the required sample volume is sufficient for analysis and that a non-detect test result indicates compliance with the final Hg limits.

Comment: We received multiple comments recommending continuous emission monitoring systems (CEMS) for Hg be included either as a requirement for all indurating furnaces or as an optional alternative to conducting performance testing and establishing operating limits. The

commenters stated that CEMS would ensure continuous compliance with the Hg standard and could help lower compliance costs by making it possible for facilities to vary the ACI rate based on the Hg emissions data collected by CEMS. Some commenters said facilities would be more likely to use CEMS if the CEMS provisions were incorporated into the rule because facilities would not have to apply for approval of an alternative monitoring method.

Response: The EPA agrees with recommendations made by commenters that suggested CEMS be included as an optional alternative to the proposed compliance monitoring and performance testing requirements. We agree that CEMS are an acceptable alternative monitoring method for assuring compliance with the Hg emissions standards. In the final rule, we have included provisions that provide owners and operators the option of using Hg CEMS in lieu of establishing operating limits and performing periodic performance testing. These provisions will provide more options for the methods that facilities can use to demonstrate compliance with the new Hg standards and reduce the burden associated with applying for Administrator approval of an alternative monitoring plan. However, we are not requiring installation of CEMS due to compliance cost considerations, as explained in the memorandum, *Development of Impacts for the Final Amendments to the NESHA for Taconite Iron Ore Processing*, which is available in the docket for this action.

Comment: Industry commenters were concerned that the proposed approach to setting operating limits for ACI would not allow facilities flexibility to adjust the carbon injection rates when production decreases. These commenters suggested the EPA allow flexibility to adjust the average ACI rate and average carrier flow rate based on taconite pellet production rates during stack testing to provide facilities with the operational flexibility needed at lower production rates.

Response: We agree with the industry commenters that lower ACI and carrier gas flow rates would achieve compliance with the emission limit when production rates are lower than the production rates during the performance test used to establish operating limits. We have included provisions in the final rule that allow a facility to adjust the operating limits based on taconite pellet production. Under the requirements of the final rule, a facility has the option of establishing operating limits for different production

rates by conducting performance tests at the maximum, minimum, and median taconite pellet production rates of an indurating furnace to develop a relationship between the carbon injection rate and taconite pellet production rate. An owner or operator would monitor the taconite pellet production rate and adjust the ACI rate in accordance with the relationship between these parameters developed during the performance testing. If the taconite pellet production rate falls below the minimum rate measured during performance testing, the owners and operators must maintain a carbon injection rate that is equal to, or above, the rate determined during the performance testing completed at the minimum taconite production rate.

As an alternative, an owner or operator may adjust the ACI rate based on the direct measurement of Hg emitted to the atmosphere. An owner or operator must install, calibrate, maintain, and operate CEMS to measure Hg emissions from each emission stack associated with the indurating furnace to use this alternative.

Comment: Industry commenters supported the EPA's decision to set the Hg emissions standards at the MACT floor rather than setting a BTF standard. Industry commenters stated that the capital and annual costs required to comply with the MACT floor are too high and setting BTF standards would not be cost-effective. One commenter asserted that any standard beyond the MACT floor must be justified by a "thorough and robust analysis of the costs and benefits." The commenter agreed with the EPA's proposed determination that the cost-effectiveness of the BTF options identified for Hg control were above the level historically found to be reasonable.

Several other commenters recommended the EPA set a BTF Hg standard and recommended the standard be at least 30-40 percent more stringent than the MACT floor. The commenters stated that additional Hg reductions can be achieved and that a more stringent Hg standard is warranted due to the bioaccumulative nature of Hg. The commenter noted that many water bodies located near taconite facilities already have fish consumption advisories, which commenters noted impact the rights of tribes to exercise their traditional life practices. One commenter noted that tribes have a particular interest in Hg emissions due to the Hg-related fish consumption advisories that have been issued by Minnesota since the 1970s and by the Fond du Lac Tribe beginning in 2000. One commenter stated that the 30

percent BTF option would reduce Hg emissions to a level that would help address public health concerns associated with high concentrations of Hg in water, fish tissues, and other subsistence resources. Commenters from several tribes located near taconite facilities stated that the EPA's Tribal trust and treaty responsibilities justified adoption of a BTF option. They added that the EPA should consider its trust responsibility to protect the interests of tribes and the tribes' treaty rights and quoted from two EPA policy documents: *EPA Policy for the Administration of Environmental Programs on Indian Reservations* (issued November 1984) and *Guidance for Discussing Tribal Treaty Rights* (issued February 2016). Both documents support consideration of Tribal rights and protections in Agency decision making. Commenters noted that the areas impacted by taconite iron ore processing plants are in the areas covered by a series of treaties. These commenters disagreed with the EPA's determination that BTF options were not cost-effective.

Response: The EPA agrees with the commenters that said the Hg standard should be set at the MACT floor. In our analysis, the BTF options were above the numbers we have found cost effective for Hg controls in prior CAA section 112 rulemakings.

The EPA recognizes the Federal government's trust responsibility, which derives from the historical relationship between the Federal government and Indian Tribes. The EPA acts consistently with the Federal government trust responsibility by implementing the statutes it administers and consulting with and considering the interests of tribes when taking actions that may affect them. As we noted in the proposal, the EPA consulted with Tribal government officials during the development of this rule. The EPA's Office of Air and Radiation held a meeting with the Fond du Lac Band of Lake Superior Chippewa Reservation and the Leech Lake Band of Ojibwe Reservation on January 12, 2022, to discuss the EPA's CAA section 114 information request, and to ensure that the views of affected tribes were taken into consideration in the rulemaking process in accordance with the *EPA Policy on Consultation and Coordination with Indian Tribes*. A summary of that consultation is provided in the document, *Consultation with the Fond du Lac Band of Lake Superior Chippewa and the Leech Lake Band of Ojibwe regarding Notice of Proposed Rulemaking for the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore*

Processing Amendments on January 12, 2022, which is available in the docket for this action.

The Agency recognizes the concerns raised by numerous Tribal commenters regarding impacts to treaty fishing and other resource rights. However, for the reasons explained below, the EPA is declining to set BTF standards for Hg, based on the statutory factors that we are required to consider pursuant to CAA section 112(d)(2) when assessing whether to set MACT standards more stringent than the MACT floor level of control. These statutory factors include the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements. As discussed in paragraphs later in this section, the cost-effectiveness values associated with BTF standards for this Taconite Iron Ore Processing rule are well above the cost-effectiveness values that EPA has historically accepted when considering BTF options for regulating mercury emissions. We note that the historic acceptable cost-effectiveness values for mercury (e.g., up to \$22,400 per pound [in 2007 dollars] in the 2011 final MATS rule, which equates to about \$32,000 per pound in current dollars) are much higher than the cost-effectiveness values we have accepted for all other HAPs (except for maybe a few exceptions such as dioxins and furans) and is based, at least in part, on the fact that mercury is a persistent, bioaccumulative, toxic (PBT) HAP. Nevertheless, we conclude that setting BTF Hg standards in this rule would be inconsistent with the values found to be cost-effective for Hg controls in prior rulemakings. We are declining to set BTF standards in this rule based on cost and other statutory factors.

Section 112(d) of the CAA requires the EPA to set emissions standards for HAP emitted by sources in each source category and subcategory listed under CAA section 112(c). The MACT standards for existing sources must be at least as stringent as the average emissions limitation achieved by the best performing 12 percent of existing sources (for which the Administrator has emissions information) or the best performing five sources for source categories with less than 30 sources (CAA sections 112(d)(3)(A) and (B)). This level of minimum stringency is called the MACT floor. For new sources, MACT standards must be at least as stringent as the control level achieved in practice by the best controlled similar source (CAA section 112(d)(3)). The EPA may not consider costs or other impacts in determining the MACT floor.

Section 112(d)(2) of the CAA also requires the EPA to examine emission standards more stringent than the MACT floor, which the EPA refers to as BTF control options. Unlike standards set at the MACT floor level of control, when assessing whether to require emission standards more stringent than the MACT floor, the EPA must consider the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements. The EPA's BTF analysis evaluated these factors in determining whether to establish Hg standards more stringent than the MACT floor. In developing this final rule, we evaluated Hg emission limits more stringent than the MACT floor after adjusting estimates of Hg emissions, Hg emission reductions, and control costs as discussed above, including those BTF limits suggested by commenters, to assess whether a BTF option was technically achievable and cost-effective. We estimate that the total capital costs and total annual costs would range from a low of \$137 million and \$92 million, respectively, for a limit that is 10 percent more stringent than the floor to a high of \$148 million and \$102 million, respectively, for a limit that is 40 percent more stringent than the floor. The incremental cost effectiveness for the BTF options examined varied from a low of \$46,266 per pound of Hg reduced for 30 percent more stringent than the floor to a high of \$91,140 per pound of Hg reduced for 40 percent more stringent than the floor. These values are well above the \$/pound of Hg reduced that we have historically found to be cost-effective when considering BTF options for regulating Hg emissions. Where EPA has taken costs into account, the Agency has finalized standards for mercury with cost effectiveness estimates of up to \$32,000/lb Hg reduced (adjusted to 2024 dollars). See *Mercury Cell Chlor-Alkali Plants Residual Risk and Technology Review* (87 FR 27002, May 6, 2022); 2011 Mercury and Air Toxics (MATS) final rule. To date, these are the highest cost-effectiveness values that we have accepted in the air toxics program for any HAP (except for maybe a few exceptions such as dioxins and furans), largely because of the toxicity and nature of Hg. While we conclude that mercury standards more stringent than the MACT floor are not cost-effective, we note that as a result of the revisions to the rule being finalized in this rulemaking, we will receive compliance test information that will allow us to evaluate our conclusions and potentially inform appropriate future

regulatory activities including the next statutorily required technology review. Mercury is one of the high concern HAPs because it is environmentally persistent, it bioaccumulates in humans and food chains—including in fish, which is a concern for subsistence needs, uses and cultural practices as noted in multiple comments from Tribes—and is a neurotoxin that is especially of concern for developing fetuses and young children. For these reasons, mercury is one of the few HAPs for which we use the expression of \$ per pound and consider higher cost-effectiveness values. We also estimated the secondary impacts of the BTF options would range between 155,000 megawatt-hours per year (MWh/yr) and 160,000 MWh/yr of electricity (with associated secondary air emissions), generate between 4.7 million and 7.4 million gallons of wastewater per year, and produce between 110,000 tons and 112,000 tons of solid waste of per year. Based on our assessment of Hg emission standards 10 percent, 20 percent, 30 percent, and 40 percent more stringent than the MACT floor, including consideration of cost and other statutory factors of setting BTF Hg standards for indurating furnaces in the source category as specified in CAA section 112(d)(2), in the final rule, we are declining to adopt BTF emission standards for Hg and are finalizing Hg standards at the MACT floor as discussed in section III.A.3 of this preamble. For more information on our analysis of the BTF control options for Hg, please see the memorandum, *Final Maximum Achievable Control Technology (MACT) Analysis for Mercury Standards for Taconite Iron Ore Indurating Furnaces*, which is available in the docket for this action.

Comment: Several commenters, including the National Park Service, several local tribes, and environmental organizations said Hg standards for the taconite industry were important because of the benefits lower Hg emissions will have on public health and the environment. One commenter cited several studies, such as the Dragonfly Mercury Project, that document elevated levels of Hg and higher risks of Hg exposure to humans and wildlife in the Great Lakes Region. This commenter stated that the upper Great Lakes Region is particularly sensitive to Hg pollution due to the abundance of wetlands and peatlands, low-pH lakes, high dissolved organic matter, low biological productivity, and other factors that provide conditions suitable for the conversion of Hg to the bioavailable form methylmercury. The

commenter also stated the impacts of Hg on wildlife include reduced foraging efficiency, lower reproductive success, impaired endocrine modulation, and damage to kidney and other tissues. The commenters expressed concern over the number of fish with Hg levels exceeding the human and wildlife health thresholds. The commenter cited data from a 1998–2016 study that measured Hg concentrations in fish from the upper Great Lakes at 0.12 ppm wet weight, with 24 percent of the fish sampled exceeding the EPA human health criterion of 0.3 ppm wet weight, 27 percent of the fish exceeding fish-eating wildlife health threshold of 0.2 ppm whole-body, and 17 percent exceeding the fish toxicity benchmark of 0.3 ppm whole-body. This commenter cited studies linking Hg deposition with bioaccumulation, including a study of Hg concentration in moose teeth from Isle Royale National Park, Michigan from 1952 to 2002. The commenter noted that Hg decreased by about two-thirds during the early 1980s but remained constant for the following 2 decades. The commenter cited an additional six studies that analyzed the concentrations and trends of Hg in bald eagle nestlings in the upper Midwest from 2006–2015 and long-term trends at two Lake Superior sites between 1989–2015. These studies show concentrations of Hg in nestling breast feathers were highest at the Saint Croix National Scenic Riverway (6.66 µg/g wet weight) and that Hg concentrations have increased at two other study area sites.

The commenters said the new Hg standards will help reduce Hg deposition in the Great Lakes Region and improve public health. The commenters asserted that taconite iron ore processing plants in Minnesota and Michigan have a significant impact on the natural resources of the upper Great Lakes Region and the elevated Hg levels in fish and bird populations. Several commenters mentioned the statewide fish consumption advisories for Hg in Minnesota, Michigan, and Wisconsin and noted several water bodies in these states are listed as impaired for aquatic consumption due to Hg. The commenters asserted that the new Hg standards will reduce the impact of Hg on public health and the environment, provide additional protection to recreational and subsistence fish consumers in national parks and surrounding communities, and protect natural resources that are of cultural significance to many local communities.

Response: The EPA acknowledges the independent research conducted by the National Park Service and others on the impacts of Hg on the communities and

wildlife of the upper Great Lakes Region. We share the commenters' concern about the elevated Hg levels in fish and other wildlife in Minnesota, Wisconsin, and Michigan, and the critical impact these Hg levels have on tribes and low-income populations that rely on the fish and wildlife from the Great Lakes region. By controlling Hg emissions, the Hg MACT standards EPA is finalizing in this action for taconite iron ore processing plants will achieve an estimated reduction of 247 pounds per year of mercury emissions from the Taconite facilities, which we expect will also achieve an unquantified reduction of Hg deposition in the Great Lakes Region and therefore improve public health of local communities, including local tribes and low-income populations.

3. What are the final MACT standards for Hg and how will compliance be demonstrated?

We are finalizing MACT standards for Hg for new and existing indurating furnaces that reflect the MACT floor level of control, based on the 99-percent UPL, of 1.4×10^{-5} lb/LT for existing sources and 2.6×10^{-6} lb/LT for new sources. We are also finalizing the emissions averaging compliance alternative that allows taconite iron ore processing facilities with more than one existing indurating furnace to comply with a Hg emissions limit of 1.3×10^{-5} lb/LT by averaging emissions on a production-weighted basis for two or more existing indurating furnaces located at the same facility.

Owners and operators may demonstrate compliance with the new Hg standards in one of two ways. Under the first option, an owner or operator may demonstrate compliance by completing performance testing and establishing operating limits for each control device used to comply with the Hg standard. The final rule clarifies that performance testing must be performed when the production rate is equal to or greater than 90 percent of the capacity of the indurating furnace. If the performance testing cannot be performed when the production rate is equal to or greater than 90 percent of the production rate capacity of the furnace, the owner or operator may complete testing at a lower production rate if they receive approval from the delegated authority. An owner or operator selecting this option must install and operate continuous parameter monitoring systems (CPMS) to monitor the parameters specified in 40 CFR 63.9631(g). An owner or operator must take corrective action when an established operating limit is exceeded.

The initial performance testing must be completed within 180 calendar days of the compliance date specified in 40 CFR 63.9583(f) for existing sources or within 180 calendar days of startup for new sources, using EPA Methods 29 or 30B in 40 CFR part 60, appendix A-8 or the VCS ASTM D6784-16, *Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)*. The performance tests must be repeated at least twice per 5-year permit term.

The second option by which an owner or operator may demonstrate compliance is through the installation and operation of CEMS for Hg. The CEMS must be installed, calibrated, maintained, and operated in accordance with the procedures specified in 40 CFR 63.9631(j). An owner or operator selecting this approach is not required to establish operating limits, install and operate CPMS, or complete the initial and periodic performance testing for Hg emissions.

As discussed in section III.A.2 of this preamble, the final rule includes an option for adjusting the carbon injection rate based on the taconite pellet production level. The facility has the option of establishing operating limits for different production rates by conducting performance tests at the maximum, minimum and median taconite pellet production rates to develop a relationship between carbon injection rate and taconite pellet production rate or by adjusting the ACI rate based on Hg emissions data collected by CEMS. Facilities that elect to adjust the carbon injection rate based on taconite production levels will have lower compliance costs due to lower annual consumption of activated carbon.

Each owner or operator must prepare a preventive maintenance plan and keep records of calibration and accuracy checks of the CPMS or CEMS to document proper operation and maintenance of all monitoring systems used to demonstrate compliance with the applicable Hg standard.

B. Revised Emission Standards for HCl and HF

1. What did we propose for the Taconite Iron Ore Processing source category?

As described in the May 15, 2023, proposal (88 FR 30917), we proposed to revise the numerical emission limits for HCl and HF, pursuant to CAA section 112(d)(6). CAA section 112(d)(6) requires the EPA to review standards promulgated under CAA section 112

and revise them “as necessary (taking into account developments in practices, processes, and control technologies)” no less often than every 8 years; we refer to such action under CAA section 112(d)(6) as a “technology review.” The EPA previously completed a technology review for the Taconite Iron Ore Processing source category in 2020 (85 FR 45476; July 28, 2020). In the May 15, 2023, proposal, we proposed to revise the HCl and HF standards based on new information we obtained in response to the 2022 information collection concerning emissions of these pollutants from the source category. For existing indurating furnaces, we proposed emissions standards of 4.4×10^{-2} lb/LT for HCl and 1.2×10^{-2} lb/LT for HF. For new indurating furnaces, we proposed emission standards of 4.4×10^{-4} lb/LT for HCl and 3.3×10^{-4} lb/LT for HF. We proposed to require that owners or operators demonstrate compliance through initial and periodic performance testing (completed at least twice per 5-year permit term), establishing operating limits for each control device used to comply with the HCl and HF standards, and installing and operating continuous parameter monitoring systems (CPMS) to ensure continuous compliance with the standards.

2. What comments did we receive on the proposed revised HCl and HF emission standards, and what are our responses?

Comment: We received comments and data from industry identifying errors in the emissions data for the Tilden and Hibbing indurating furnaces submitted to the EPA in response to the CAA section 114 information request sent to the taconite facilities in 2022. For the Tilden stack test report, industry confirmed the units of measure were incorrectly listed in the stack test report submitted by industry as “pounds per ton” instead of “pounds per long ton” of taconite pellets produced. Commenters confirmed the units of measure should be “pounds per long ton.” For Hibbing, the commenters identified one transcription error in the HCl emissions data for one of the four emission stacks.

Response: In response to these comments, the EPA reviewed all stack test runs for the seven furnaces that completed HCl and HF stack testing pursuant to the 2022 CAA section 114 information request. We confirmed there was a transcription error in HCl emissions for the first run of the stack testing completed on the Hibbing furnace. Since the emissions data for Hibbing were included in the dataset

used to calculate the proposed HCl emission limit, we recalculated the emission limit for HCl using the revised data. As a result of the changes to the Hibbing emissions data, the numerical emission standard for HCl for existing sources was revised from the proposed 4.4×10^{-2} lb/LT to the 4.6×10^{-2} lb/LT limit we are finalizing in this action. The revisions to the emissions data do not impact the numerical limit for HCl for new sources or the numerical limits for HF for new and existing sources. Therefore, the proposed HCl standard for new sources of 4.4×10^{-4} lb/LT and the HF standards for new and existing sources of 3.3×10^{-4} lb/LT and 1.2×10^{-2} lb/LT, respectively, are finalized without change.

The EPA revised the units of measure for the Tilden HCl and HF emission data based on the comments we received from industry. As we explained in the proposal, the HCl and HF emissions data for the Tilden furnace are not used to calculate the emission limits for HCl and HF because Tilden’s furnaces use dry electrostatic precipitators (ESP). In the proposal, we stated that we expect Tilden’s two indurating furnaces would be able to meet the HF limit for existing furnaces without adding any air pollution control devices but that we expect Tilden would be required to add air pollution control devices to meet the proposed HCl emission standard. Although the revised emission rates for Tilden are slightly lower than the emissions rates used for the proposal, we expect that Tilden’s furnaces would still need to add air pollution controls to meet the HCl emission standard we are finalizing for existing furnaces. As explained in the previous paragraph, the EPA is finalizing the HCl emission standard of 4.6×10^{-2} lb/LT for existing sources. To comply with the HCl emission standard, Tilden must reduce HCl emissions by 76 percent (compared to 79 percent HCl reduction we estimated at proposal) and the HCl emissions reduction for the final rule is 683 tpy (compared to a 713 tpy reduction we estimated at proposal). Our revised total capital cost estimate for HCl controls (dry sorbent injection) is \$1.1 million and our revised annual cost estimate is \$1.4 million. The revised cost effectiveness is \$2,040 per ton of HCl removed, which is a level of cost effectiveness that is acceptable for HCl and would also likely be acceptable for any other HAP. The revised emissions data, numerical limits, and cost estimates prepared for the final rule are documented in the memorandum, *Final Revised Technology Review of Acid Gas Controls for Indurating*

Furnaces in the Taconite Iron Ore Processing Source Category, which is available in the docket for this action.

Comment: Multiple commenters were supportive of replacing PM as a surrogate for HCl and HF emissions and supported the proposed numerical emission limits for HCl and HF. One commenter said the PM limit was not a valid surrogate for emissions of HCl and HF and argued the EPA should set HCl and HF limits under the provisions of CAA section 112(d)(2) and (3). However, other commenters from industry disagreed with our proposal and said the existing standards based on PM as a surrogate for acid gases should not be changed. These commenters asserted that the EPA lacked the authority to revise the existing HCl and HF standards because the EPA had not shown that technological developments have occurred that would lower emissions of acid gases nor shown that revisions are necessary, as required by CAA section 112(d)(6). The commenters stated that new emissions data does not qualify as a development under CAA section 112(d)(6) and that the language in CAA section 112(d)(6) focuses on actual control measures and requires the EPA to update an existing emissions standard only if improvements in control measures occur and the improvements in control measures warrant a revision. The commenters added that PM is still recognized as a proper surrogate for HAP emissions and the revised standards are unnecessary because they impose a significant financial burden on taconite iron ore processing plants without reducing risks to the public health and the environment.

Response: The EPA agrees that revising the emission limits for HCl and HF is appropriate for the reasons explained in this discussion, below, and in the proposal preamble (88 FR 30926). We disagree that the EPA lacks authority to revise the existing standards for HCl and HF. When the NESHAP for the Taconite Iron Ore Processing source category was first developed, PM emission limits were used as a surrogate for HCl and HF. The decision to use the PM standards as a surrogate for HCl and HF emissions was based on an analysis of the HCl, HF, and PM emissions data that the EPA possessed at the time of promulgation of the initial NESHAP for the Taconite Iron Ore Processing source category in 2003 (68 FR 61868; October 30, 2003). That data indicated there was a correlation between acid gas and PM emissions. We note, however, that the use of PM as a surrogate for HCl and HF and the corresponding PM emission limit were

based on a limited dataset because only three furnaces conducted PM emissions tests concurrently with the HCl and HF tests. As part of the 2022 CAA section 114 information request, the EPA sought emissions data from Taconite Iron Ore Processing facilities, including stack testing for PM, HCl, and HF emissions from seven indurating furnaces located at six taconite facilities. The data received in response to the 2022 CAA section 114 information request are presented in the memorandum, *Final Emissions Data Collected in 2022 for Indurating Furnaces Located at Taconite Iron Ore Processing Plants*, which is available in the docket for this action. The 2022 dataset is not only more robust than the limited dataset available in 2003 but also more representative of current conditions since some of the control devices used on the furnaces at the time of the 2003 rulemaking have changed since that time. For example, the Keetac plant has since replaced the multicyclones on their indurating furnace with venturi scrubbers and the Tilden plant replaced a wet ESP on one stack with a dry ESP. Based on this new data, we determined it was more appropriate to directly regulate the HAP of concern than to use a surrogate. Our analysis of the 2022 data and our review of available air pollution controls for acid gases indicates that the controls we expect will be necessary to meet the numerical standards for HCl and HF are available and cost-effective. As we explained in the proposal (88 FR 30926), the new data received in response to the 2022 CAA section 114 information request showed that indurating furnaces using wet scrubbers achieve better control of HCl and HF than furnaces using dry ESP.

We disagree with commenter that we lack the authority to revise standards pursuant to CAA section 112(d)(6) absent a showing that the revisions would reduce risk. CAA section 112(d)(6) requires the EPA to review and revise as necessary emission standards taking into account developments in practices, processes, and control technologies. This provision does not require the EPA to consider risk. We agree that the EPA has the discretion to consider cost when considering the appropriate level of control under CAA section 112(d)(6). The EPA identified dry sorbent injection (DSI) and wet scrubbers as a feasible control options and estimated the associated costs. We concluded that DSI is the lowest cost option for the indurating furnaces located at the Tilden plant. Based on this analysis, the

EPA concluded the costs to comply with the numerical limits for HCl were justified and cost-effective and do not impose a significant financial burden on industry. The cost effectiveness was estimated to be \$2,040 per ton of HCl removed, which is within the range the EPA has previously considered to be a cost-effective level of control for many HAP. Based on the 2022 emissions data, add on air pollution controls are not required to meet the HF emission limit. The standards we are finalizing in this action ensure HCl and HF emissions from all indurating furnaces in the source category are controlled to the same extent as the best performing indurating furnaces in the source category.

Comment: Industry commenters stated there is no basis for changing the way HCl and HF emissions are regulated, that the EPA did not explain why PM cannot be used as a surrogate for HCl and HF emissions, and that if revised standards were needed, they should be based on the subcategories established in the Taconite Iron Ore Processing NESHAP in 2003. The commenters stated that the EPA should make determinations on whether new standards are necessary for each subcategory and then should base any new standards for each subcategory on emission data for the furnaces within that subcategory. The commenters acknowledged that CAA section 112(d)(6) authorizes the EPA to review and revise as necessary the emission standards every 8 years, but they said the statute does not permit the EPA to develop new standards ignoring the existing subcategories. The commenters argued the Tilden facility processes a different type of taconite ore (*i.e.*, hematite instead of magnetite) than the other facilities and therefore the furnaces at this facility should remain in a separate subcategory from the furnaces at the other facilities (as was the case when the EPA established the PM standards in the 2003 NESHAP). The commenters noted that a subcategory was established for grate kilns processing hematite ore because of differences in the ore and furnace, including different air flow direction and rates, the perpetual motion of the pellets inside the kiln, fineness of the hematite ore, tendency for the hematite pellets to break, and production of fluxed pellets that use limestone/dolomite containing chloride. For furnaces that process magnetite, the commenters argued that limits for HCl and HF are not needed and would result in unnecessary compliance costs

without health and environmental benefits.

Response: We disagree with the industry commenters' assertion that the EPA should extend the subcategorization for PM standards used in the 2003 rulemaking and set HCl and HF limits only for grate kilns processing hematite ore. When the NESHAP for the Taconite Iron Ore Processing source category was initially developed, indurating furnaces were identified as significant sources of HCl and HF emissions. The NESHAP promulgated in 2003 established limits, as required under CAA section 112(d), for all indurating furnaces. The decision to use the PM standards as a surrogate for HCl and HF emissions was based on very limited HCl, HF, and PM emissions data available and evaluated for the 2003 rulemaking. As we explained in the response to the previous comment, in this action, we have determined it is more appropriate to directly regulate the HAP of concern (*i.e.*, HCl and HF) than to use a surrogate, using the more robust 2022 dataset now available to us. The data collected for this rulemaking are presented in the memorandum, *Final Emissions Data Collected in 2022 for Indurating Furnaces Located at Taconite Iron Ore Processing Plants*, which is available in the docket for this action.

We disagree with commenters' assertion that emission limits for acid gases should be established using the existing subcategories for PM and that HCl and HF standards are not necessary for furnaces that process magnetite ore. The EPA found in the 2003 NESHAP final rule that HCl and HF are emitted by all indurating furnaces and established standards for all types of indurating furnaces in the Taconite Iron Ore Processing source category, including those indurating furnaces that process magnetite ore. Indeed, the emissions data collected in response to the 2022 CAA section 114 information request demonstrate that indurating furnaces processing magnetite ore emit measurable levels of HCl and HF even after control by wet scrubbers. HCl and HF are formed in indurating furnaces due to the presence of chlorides and fluorides in the raw materials used to form the greenballs (*i.e.*, unfired taconite pellets) that are fed into the indurating furnaces. While some of the chlorides and fluorides in the raw materials come from the ore, pellet additives, such as dolomite and limestone, are also a source of HCl and HF emissions. These additives are routinely used by all taconite plants, including those that process magnetite ore. Although the commenters suggested

plants processing hematite ore using grate-kilns should be considered a separate subcategory when considering acid gas emissions, the commenters provided no data demonstrating a significant difference in the chloride and fluoride content of the two types of ores. Nor did they provide any explanation or data to support their assertion that differences in the design of the indurating furnace impact HCl and HF emissions. The data pertaining to indurating furnaces processing magnetite ore that was collected in response to the 2022 CAA section 114 information request does not show a significant difference in acid gas emissions between straight-grate and grate kiln indurating furnaces.

Pursuant to CAA section 112(d)(1), the Administrator "may distinguish among classes, types, and sizes of sources within a category or subcategory in establishing" standards. However, as we have discussed in previous Agency actions, the CAA does not mandate that the EPA create subcategories. See, *e.g.*, *National Emission Standards for Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units and Standards of Performance for Fossil-Fuel-Fired Electric Utility, Industrial-Commercial-Institutional, and Small Industrial-Commercial-Institutional Steam Generating Units* (77 FR 9304, 9378; February 16, 2012) ("2012 Mercury and Air Toxics Final Rule"). In addition, the Agency may create subcategories for the purpose of regulating specific HAP, while declining to create subcategories more broadly. In the 2012 Mercury and Air Toxics Final Rule, we explained the Agency's position that any basis for subcategorization (*i.e.*, class, type, or size) typically must be related to an effect on HAP emissions that is due to the difference in class, type, or size of the sources. We further explained that "[e]ven if we determine that emissions characteristics are different for units that differ in class, type, or size, the Agency may still decline to subcategorize if there are compelling policy justifications that suggest subcategorization is not appropriate" (77 FR 9378). In the 2012 Mercury and Air Toxics Final Rule, we determined it was appropriate to subcategorize coal-fired boilers for purposes of regulating Hg emissions based on differences in Hg emissions between two types of coal-fired boiler subcategories. We also determined that for all other HAP, the data did not show any difference in HAP emission levels, and we declined to set separate emission standards for

the two types of coal-fired boilers for other HAP.

In this final rule, we are retaining the separate PM emission limits established in the 2003 final rule for indurating furnaces processing magnetite and hematite. Based on the data available, we continue to believe it is appropriate to retain these separate PM emission standards because hematite is a finer grained ore than magnetite, and processing of hematite in an indurating furnace results in higher PM emissions than processing magnetite. However, we are declining to subcategorize taconite indurating furnaces for purposes of regulating Hg or acid gas emissions. As explained previously, pursuant to CAA section 112(d)(1), the EPA has the discretion to subcategorize sources for the purpose of setting emission standards under CAA section 112, but is not required to do so. As we also explained, where the EPA elects to subcategorize sources, we typically do so for the purpose of setting standards for specific HAP where the basis for the subcategorization is related to an effect on HAP emissions that is due to a difference in class, type, or size of the sources. The differences in emissions of HCl and HF among taconite indurating furnaces are largely the result of differing controls utilized by sources rather than a result of the class, type, or size of the indurating furnaces themselves. Therefore, we conclude that the differences in HCl and HF emissions are not due to differences in the class, type, or size of taconite indurating furnaces. As a result, we do not believe it is appropriate to subcategorize taconite indurating furnaces for the purpose of regulating Hg, HCl, or HF emissions and are declining to do so in this final rule.

Based on the data available, the EPA proposed to set HCl and HF emission standards that apply to all indurating furnaces. In this action, we are finalizing emission standards for HCl and HF as discussed in section III.B.1 of this preamble. While the HCl emission standard for existing furnaces differs from what we proposed for the reasons explained in section III.B.2 of this preamble, we continue to believe it is appropriate to set numerical emission standards for HCl and HF based on the 2022 ICR data rather than to continue to rely on PM standards as a surrogate for these pollutants. While we expect that most indurating furnaces will be able to meet the revised HCl and HF limits using existing air pollution controls, the new performance testing and parametric monitoring requirements are necessary to ensure continuous compliance with the HCl and HF emission standards. The

PM testing and monitoring requirements in the current NESHAP designed to ensure compliance with the PM emission standards, which will remain in place as surrogates for non-Hg metal HAP, are not sufficient to demonstrate compliance with the HCl and HF emission standards. Each owner and operator must complete performance testing, establish operating limits for each control device used to control HCl and HF, and monitor the appropriate parameters to demonstrate the control device is operating in a manner that ensures compliance with the HCl and HF emission standards. Performance testing must be completed at least twice per 5-year permit term and within 180 days of startup of new furnaces.

Comment: Industry commenters asserted the data used to develop the numerical standards for HCl and HF was too limited to reflect the operational and seasonal variability in the HCl and HF emissions. They stated that several factors influence the HCl and HF emissions and that the emissions data received in response to the 2022 CAA section 114 information request covers too short of a time period to be representative of the acid gas emissions from indurating furnaces. The commenters noted that HCl and HF emissions are driven by the chloride or fluoride content in the iron ore and that the limited dataset does not account for the full range of variability in the chlorine and fluorine content of raw materials. They stated that the raw materials vary throughout a taconite mine, producing raw materials with different compositions and characteristics that are not reflected in the 2022 CAA section 114 information request data. The commenters recommended the HCl and HF limits be based on a more representative dataset collected over a longer period of time that accounts for raw material variation as well as seasonal and operational variation. The commenters stated that because the proposed limits are based on a limited dataset that does not fully account for operational variability, the proposed HCl and HF emission limits should not be finalized and they recommended that the PM standards in the current NESHAP continue to be used as a surrogate for acid gas emissions.

Response: The method used to calculate the proposed numeric emission limits for HCl and HF for new and existing taconite indurating furnaces has been used for several years to set numerical limits for other source categories and is an appropriate methodology that accounts for

variability in the emissions between different furnaces and different plants and accounts for some variability in the chloride and fluoride content of the ore and pellet additives used at different facilities because it includes data from two different types of indurating furnaces (straight grate furnaces and grate kiln furnaces) at five different taconite facilities. We used the emissions data from the six indurating furnaces currently using wet scrubbers to calculate a UPL. The UPL approach encompasses all the data point-to-data point variability within the sample set (*i.e.*, all of the emissions data from the six indurating furnaces equipped with wet venturi scrubbers), which consisted of 21 individual data points. The UPL was calculated as the mean of the 21 data points plus a factor that accounts for the variability within the dataset. The UPL represents the value which one can expect the mean of a specified number of future observations (*e.g.*, 3-run average) to fall below at a specified level of confidence based upon the results of an independent sample from the same population. We used a 99-percent level of confidence to calculate the UPL, which means that a facility that uses the same or similar type of air pollution control device(s) has one chance in 100 of exceeding the emission limit. A prediction interval for a single future observation (or an average of several test observations) is an interval that will, with a specified degree of confidence, contain the next (or the average of some other pre-specified number of) randomly selected observation(s) from a population. The UPL estimates what the upper bound of future values will be based upon present or past background samples taken. While larger datasets are always preferable, numerical emission limits are often based on data from a single stack test event. For additional information on the methodology used to develop the numerical emission standards for HCl and HF for the final rule, please see the memorandum, *Final Revised Technology Review of Acid Gas Controls for Indurating Furnaces in the Taconite Iron Ore Processing Source Category*. A copy of this document is available in the docket for this action.

3. What are the revised standards for HCl and HF and how will compliance be demonstrated?

We are finalizing numerical emission limits for HCl and HF, pursuant to CAA section 112(d)(6). We are finalizing as proposed the numerical emission limit for HCl for new indurating furnaces. We are finalizing a numerical emission limit

for HCl for existing indurating furnaces which differs from the limit proposed because the final limit reflects a revision to the emissions data for the Hibbing facility, as discussed in section III.B.2 of this preamble. We are finalizing as proposed the numerical emission limits for HF for new and existing indurating furnaces. For existing indurating furnaces, we are finalizing an HCl emission limit of 4.6×10^{-2} lb/LT and are finalizing an HF emission limit of 1.2×10^{-2} lb/LT. For new indurating furnaces, we are finalizing an HCl emission limit of 4.4×10^{-4} lb/LT and are finalizing an HF emission limit of 3.3×10^{-4} lb/LT. Further discussion of the HCl and HF emission standards and the methodology used to develop the emission standards, as well as a discussion of costs, may be found in the memorandum, *Final Revised Technology Review of Acid Gas Controls for Indurating Furnaces in the Taconite Iron Ore Processing Source Category*, which is available in the docket for this action.

We are also finalizing as proposed the requirement to complete performance testing for HCl and HF using EPA Method 26A and to establish operating limits for each control device used to comply with the HCl and HF standards, in accordance with the amended provisions of 40 CFR 63.9622. The final rule clarifies that the owner or operator must perform performance testing when the pellet production rate is equal to or greater than 90 percent of the capacity of the indurating furnace. If the performance testing cannot be performed at or above 90 percent of capacity of the indurating furnace, the owner or operator may complete testing at a lower production rate if they receive approval from the delegated authority. The owner or operator must install and operate CPMS in accordance with the requirements of 40 CFR 63.9633 and must prepare a preventive maintenance plan and keep records of calibration and accuracy checks of the CPMS to document proper operation and maintenance of each monitoring system. An owner or operator must take corrective action when an established operating limit is exceeded. The owner or operator must complete the initial performance tests within 180 calendar days of the compliance date for existing furnaces, or within 180 calendar days of startup for new furnaces. The performance tests must be repeated at least twice per 5-year permit term.

C. What other amendments are we finalizing?

1. Requirement To Complete Performance Testing Within 7 Calendar Days

The EPA proposed amendments to the performance testing provisions that would require the owner or operator to complete a performance test on a source within 7 calendar days of initiating that performance test. This provision was included for the existing performance testing for PM, as well as for the proposed new performance testing for Hg, HCl, and HF. We received one comment that resulted in changes to the proposed requirements. The comment and our response are summarized below.

Comments: Industry commenters opposed the proposed requirement that all performance testing be completed within 7 calendar days because some emission sources have multiple stacks and testing of multiple stacks could require more than 7 days to complete. They also stated that unanticipated shutdowns due to process upsets may prevent tests from being completed within 7 days. The commenters recommended that the EPA allow facilities to notify the Administrator when a longer time frame is needed but asserted that facilities should not be required to obtain approval if more than 7 calendar days are needed to complete performance testing.

Response: We consider the 7 calendar day period to complete all performance testing to be reasonable based on our previous experience with performance testing at industrial facilities. We believe it is unlikely that a facility would be unable to complete the required performance testing within a 7 calendar day timeframe. However, we acknowledge the commenters' concerns that unanticipated shutdowns can occur due to equipment failures or process upsets. To address such circumstances, we included the phrase "to the extent practicable" in the final rule. We have finalized the proposed requirement that performance tests be completed within 7 calendar days of the date on which the first test run was started. However, we agree with the commenters' suggestion that owners and operators be required to notify the Administrator when a performance test cannot be completed within 7 calendar days. In the final rule, we revised the proposed language in 40 CFR 63.9620(b)(2), 63.9620(k)(2), and 63.9630(b) to require facilities that will not be able to complete performance tests within 7 calendar days to notify the Administrator within 24 hours of

making the determination that they will not be able to do so.

2. Amendments to the Electronic Reporting Requirements

We are also finalizing as proposed changes to the electronic reporting requirements found in 40 CFR 63.9641(c) and 40 CFR 63.9641(f)(3) to reflect new procedures for reporting CBI, including adding an email address that an owner or operator may use to electronically submit compliance reports containing CBI to the OAQPS CBI Office. We received no comments on these proposed amendments.

D. What are the effective and compliance dates for the mercury, HCl, and HF emission standards?

The revisions to the MACT standards promulgated in this action are effective on March 6, 2024. For all affected sources that commence construction or reconstruction before May 15, 2023, we are finalizing, as proposed, that an owner or operator must comply with the new Hg emission standard and revised HCl and HF standards no later than 3 years after the effective date of the final rule. For all affected sources that commenced construction or reconstruction on or after May 15, 2023, we are finalizing, as proposed, that owners and operators comply with provisions by the effective date of the final rule or upon startup, whichever is later. For existing sources, CAA section 112(i)(3) requires compliance "as expeditiously as practicable, but in no event later than 3 years after the effective date of such standard" subject to certain exemptions further detailed in the statute.⁴ In determining what compliance period is as "expeditious as practicable," we examine the amount of time needed to plan and construct projects and change operating procedures. Since some existing sources may need to install new add-on controls to comply with the Hg, HCl, and/or HF standards, we determined that a period of 3 years is appropriate to allow owners and operators time to plan, design, construct, begin operating the new add-on controls, and conduct performance testing.

IV. Summary of Cost, Environmental, and Economic Impacts

A. What are the affected sources?

The Taconite Iron Ore Processing NESHAP applies to the owner or

operator of a taconite iron ore processing plant that is (or is part of) a major source of HAP emissions. A taconite iron ore processing plant is any facility engaged in separating and concentrating iron ore from taconite ore to produce taconite pellets. Taconite iron ore processing includes the following processes: liberation of the iron ore by wet or dry crushing and grinding in gyratory crushers, cone crushers, rod mills, and ball mills; concentration of the iron ore by magnetic separation or flotation; pelletizing by wet tumbling with a balling drum or balling disc; induration using a straight grate or grate kiln indurating furnace; and finished pellet handling. A major source of HAP is a plant site that emits, or has the potential to emit, any single HAP at a rate of 9.07 megagrams (10 tons) or more, or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site. There are currently seven major sources subject to the Taconite Iron Ore Processing NESHAP that are operating in the United States with six located in Minnesota and one located in Michigan. One additional major source located in Michigan, Empire Mining, is subject to the Taconite Iron Ore Processing NESHAP and has a permit to operate but has been indefinitely idled since 2016.

B. What are the air quality impacts?

To meet the Hg emission limits we anticipate that five of the taconite iron ore processing plants would likely need to install additional controls on their indurating furnaces. To meet the HCl and HF emission limits, we anticipate that one additional taconite iron ore processing plant would likely need to install additional controls on their indurating furnaces. We estimate that the installation of such controls will reduce Hg emissions by 247 pounds per year (0.12 tpy) and HCl and HF emissions by 683 tpy and 36 tpy, respectively.

Indirect or secondary air emissions impacts are impacts that would result from the increased electricity usage associated with the operation of control devices (e.g., increased secondary emissions of criteria pollutants from power plants). Energy impacts consist of the electricity and steam needed to operate control devices and other equipment. As explained in the memorandum, *Development of Impacts for the Final Amendments to the NESHAP for Taconite Iron Ore Processing*, which is available in the docket for this action, we find that the secondary air emissions impacts of this

⁴ *Association of Battery Recyclers v. EPA*, 716 F.3d 667, 672 (D.C. Cir. 2013) ("Section 112(i)(3)'s 3-year maximum compliance period applies generally to any emission standard . . . promulgated under [section 112]" (brackets in original)).

action are minimal. The memorandum includes a detailed discussion of our analysis of emissions reductions and potential secondary impacts.

This rule is expected to limit emissions of directly emitted PM_{2.5}, which will in turn reduce ambient concentrations of PM_{2.5} and in turn benefit public health. Though EPA neither quantified nor monetized these benefits, we anticipate reducing PM_{2.5} concentrations will reduce the incidence or premature death, non-fatal heart attacks, cases of aggravated asthma, lost days of work and school and other adverse effects (U.S. EPA, 2022).⁵ EPA has generated benefit per ton estimates for directly emitted PM_{2.5} reductions from the taconite sector valued at \$60,600/ton (2016\$).⁶ In addition, there are estimates for secondarily-formed PM_{2.5} from reductions in SO₂ emissions valued at \$32,800/ton (2016\$). However, EPA did not conduct a comprehensive benefit-cost analysis for this rulemaking. This rule is also expected to reduce emissions of Hg. Methylmercury (MeHg), which is formed by microbial action in the top layers of sediment and soils, after mercury has precipitated from the air and deposited into waterbodies or land, is known to cause a number of adverse effects. Though not quantified here, these effects include IQ loss measured by performance on neurobehavioral tests, particularly on tests of attention, fine motor-function, language, and visual spatial ability.

C. What are the cost impacts?

We estimate the total capital and annualized costs of this final rule for existing sources in the Taconite Iron Ore Processing source category will be approximately \$106 million and \$68 million per year, respectively. The annual costs are based on operation and maintenance of added control systems. Although this action also finalizes standards for new sources, we are not aware of any new sources being constructed now or planned for the future. No new indurating furnaces have been constructed, reconstructed or modified in more than a decade and the domestic demand for taconite pellets has decreased over the past several

decades caused by the increasing use of electric arc furnaces.⁷ Consequently, we did not estimate any cost impacts for new sources. The memorandum, *Development of Impacts for the Final Amendments to the NESHA for Taconite Iron Ore Processing*, includes details of our cost assessment, expected emission reductions and estimated secondary impacts. A copy of this memorandum is available in the docket for this action.

D. What are the economic impacts?

The EPA assessed the potential economic impacts of this action by comparing the expected annual cost for operating the air pollution control devices to the total sales revenue for the ultimate owners of affected facilities. The expected annual cost is \$10.2 million (on average) for each facility that needs air pollution controls to comply with the standards, with an estimated nationwide annual cost of \$61 million per year. The six affected facilities are owned by two parent companies (U.S. Steel and Cleveland-Cliffs, Inc.). Neither parent company qualifies as a small business, and the total costs associated with this final rule are expected to be less than 1 percent of annual sales revenue per ultimate owner.

The EPA also modeled the economic impacts of the final rule using two standard partial equilibrium economic models: one for taconite iron ore pellets and one for steel mill products. The EPA linked these two partial equilibrium models by specifying interactions between supply and demand in both markets and solving for changes in prices and quantity across both markets simultaneously. These models use baseline economic data from 2019 to project the impact of the final rule on the market for taconite iron ore pellets and steel mill products. The models allow the EPA to project facility- and market-level price and quantity changes for taconite iron ore pellets and market-level price and quantity changes for steel mill products, including changes in imports and exports in both markets. The models project a 0.28 percent fall in the quantity of domestically produced taconite iron ore pellets along with a 0.63 percent increase in their price. The models also project a 0.02 percent fall in the quantity of domestically produced steel mill products along with an 0.01 percent increase in their price. Details of

our economic impact estimates for sources in the Taconite Iron Ore Processing source category may be found in the document, *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments (EIA)*, which is available in the docket for this action.

E. What analysis of environmental justice did we conduct?

Consistent with the EPA's commitment to integrating environmental justice (EJ) into the Agency's actions, and following the directives set forth in multiple executive orders, the EPA evaluated the impacts of this action on communities with EJ concerns. Overall, we found that in the population living in close proximity (within 10 kilometers (km)) of facilities, the following demographic groups were above the national average: White, Native American, and people living below the poverty level. The EPA defines EJ as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."⁸ The EPA further defines fair treatment to mean that "no group of people should bear a disproportionate burden of environmental harms and risks, including those resulting from the negative environmental consequences of industrial, governmental, and commercial operations or programs and policies."

For the Taconite Iron Ore Processing source category, the EPA examined the potential for EJ concerns by conducting a proximity demographic analysis for the eight existing taconite iron ore processing plants (seven operating plants and one indefinitely idled). The proximity demographic analysis is an assessment of individual demographic groups in the total population living within 10 km and 50 km of the facilities. The EPA compared the data from this analysis to the national average for each of the demographic groups. Since the taconite iron ore processing facilities are very large, a radius of 10 km was used as the near facility distance for the proximity analysis. A distance closer than 10 km does not yield adequate population size for the results. A summary of the proximity demographic assessment was included in Table 5 in the proposal for this rulemaking (88 FR 30931; May 15, 2023). The results show that for the population living within 10

⁵ U.S. EPA, 2022. *Estimating PM_{2.5}- and Ozone-Attributable Health Benefits*. Office of Air and Radiation, Research Triangle Park, NC.

⁶ U.S. EPA (2023). *Technical Support Document Estimating the Benefit per Ton of Reducing Directly-Emitted PM_{2.5}, PM_{2.5} Precursors and Ozone Precursors from 21 Sectors*. Research Triangle Park, NC: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Health and Environmental Impact Division. Available at: https://www.epa.gov/system/files/documents/2021-10/source-apportionment-tsd-oct-222021_0.pdf.

⁷ U.S. EPA, 2024. *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments*. Office of Air and Radiation, Research Triangle Park, NC.

⁸ <https://www.epa.gov/environmentaljustice>.

km of the eight facilities, the following demographic groups were above the national average: White (93 percent versus 60 percent nationally), Native American (0.8 percent versus 0.7 percent nationally), and people living below the poverty level (15 percent versus 13 percent nationally). For two facilities (the UTAC and Minntac facilities), the percentage of the population living within 10 km that is Native American (1.9 percent and 2.3 percent) was more than double the national average (0.7 percent). For four facilities (Keetac, Hibbing, Minorca, and Minntac) the percentage of the population living within 10 km that is low-income is above the national average. The results of the proximity analysis are in the technical report, *Analysis of Demographic Factors For Populations Living Near Taconite Iron Ore Processing Source Category Operations*, which is available in the docket for this action.

This action sets new standards for Hg and revised standards for HCl and HF that will reduce the annual emissions of these HAP from taconite facilities. The Hg standards will reduce the health, environmental and cultural impacts of Hg identified by tribes in their comments by requiring the five taconite facilities (UTAC, Keetac, Hibbing, Minorca, and Minntac) that have nearby Native American populations and low-income populations above the national averages to reduce Hg emissions by up to 247 pounds per year (0.12 tpy). The emission limits must be met at all times (including periods of startup, shutdown, and malfunctions) and compliance must be demonstrated through monitoring of control device operating parameters and either periodic testing or CEMS.

V. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a “significant regulatory action” as defined in Executive Order 12866, as amended by Executive Order 14094. Accordingly, the EPA submitted this action to the Office of Management and Budget (OMB) for Executive Order 12866 review. Documentation of any changes made in response to the Executive Order 12866 review is available in the docket. The EPA prepared an economic analysis of the potential impacts associated with this

action. This analysis is summarized in section IV.D of this preamble and in the document *Economic Impact Analysis for the Final National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing Amendments*, available in Docket ID No. EPA-HQ-OAR-2017-0664.

B. Paperwork Reduction Act (PRA)

The information collection activities in this rule have been submitted for approval to the OMB under the PRA. The ICR document that the EPA prepared has been assigned EPA ICR number 2050.10, OMB Control Number 2060-0538. You can find a copy of the ICR in the docket for this action, and it is briefly summarized here. The information collection requirements are not enforceable until OMB approves them.

In this action, we are finalizing changes to the reporting and recordkeeping requirements for the Taconite Iron Ore Processing NESHAP by incorporating reporting and recordkeeping requirements for the new MACT standards for Hg and the revised emission standards for HCl and HF.

Respondents/affected entities:

Owners or operators of taconite iron ore plants that are major sources, or that are located at, or are part of, major sources of HAP emissions.

Respondent’s obligation to respond: Mandatory (40 CFR part 63, subpart RRRRR).

Estimated number of respondents: On average over the next 3 years, approximately seven existing major sources will be subject to these standards. It is also estimated that no additional respondent will become subject to the emission standards over the 3-year period.

Frequency of response: The frequency of responses varies depending on the burden item.

Total estimated burden: The average annual burden to industry over the next 3 years from the new recordkeeping and reporting requirements is estimated to be 1,580 hours per year. Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: The annual recordkeeping and reporting costs for all facilities to comply with all the requirements in the NESHAP is estimated to be \$185,000 per year. The average annual recordkeeping and reporting cost for this rulemaking is estimated to be \$26,500 per facility per year. The operation and maintenance costs are estimated to be \$18 million per year.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information

unless it displays a currently valid OMB control number. The OMB control numbers for the EPA’s regulations in 40 CFR are listed in 40 CFR part 9. When OMB approves this ICR, the Agency will announce that approval in the **Federal Register** and publish a technical amendment to 40 CFR part 9 to display the OMB control number for the approved information collection activities contained in this final rule.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action will not impose any requirements on small entities. The Agency confirmed through responses to a CAA section 114 information request that there are only seven taconite iron ore processing plants currently operating in the United States and that these plants are owned by two parent companies that do not meet the definition of small businesses, as defined by the U.S. Small Business Administration.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action imposes no enforceable duty on any state, local, or Tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the National Government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have Tribal implications as specified in Executive Order 13175. The Executive Order defines Tribal implications as “actions that have substantial direct effects on one or more Indian Tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.” The amendments in this action would not have a substantial direct effect on one or more tribes, change the relationship between the Federal Government and tribes, or affect the distribution of power

and responsibilities between the Federal Government and Indian Tribes. Thus, Executive Order 13175 does not apply to this action.

Although this action does not have Tribal implications as defined by Executive Order 13175, consistent with the *EPA Policy on Consultation and Coordination with Indian Tribes*, the EPA consulted with Tribal officials during the development of this action. On January 12, 2022, the EPA's Office of Air and Radiation held a Tribal consultation meeting with the Fond du Lac Band of Lake Superior Chippewa Reservation and the Leech Lake Band of Ojibwe Reservation to discuss the EPA's 2022 CAA section 114 information request and to ensure that the views of tribes were taken into consideration in the rulemaking process in accordance with the *EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011)* and the *EPA Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights (February 2016)*. A summary of the meeting may be found in the document, *Consultation with the Fond du Lac Band of Lake Superior Chippewa and the Leech Lake Band of Ojibwe regarding Notice of Proposed Rulemaking for the National Emission Standards for Hazardous Air Pollutants for Taconite Iron Ore Processing Amendments on January 12, 2022*, which is available in the docket for this action. In addition, the EPA's staff attended several meetings hosted by the Minnesota Pollution Control Agency (MPCA), along with representatives from Tribal Nations, MPCA, the Michigan Attorney General's Office, the Minnesota Attorney General's Office, Earthjustice, and the Michigan Department of Environment, Great Lakes, and Energy, to discuss concerns related to HAP emissions from taconite iron ore processing facilities. The EPA also received letters from representatives of the Leech Lake Band of Ojibwe and the Fond du Lac Band of Lake Superior Chippewa expressing concerns of these Tribal Nations due to HAP emissions from the taconite iron ore processing facilities. Copies of these letters, as well as the EPA's responses to them, are available in the docket for this action.

G. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

This action involves technical standards. Therefore, the EPA conducted searches for the Taconite Iron Ore Processing NESHAP through the Enhanced National Standards Systems Network (NSSN) Database

managed by the American National Standards Institute (ANSI). We also conducted a review of VCS organizations and accessed and searched their databases. We conducted searches for EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 5, 5D, 17, 26A, 29 and 30B. During the VCS search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to the EPA's reference method, the EPA ordered a copy of the standard and reviewed it as a potential equivalent method. We reviewed all potential standards to determine the practicality of the VCS for this rule. This review requires significant method validation data that meet the requirements of EPA Method 301 for accepting alternative methods or scientific, engineering, and policy equivalence to procedures in the EPA referenced methods. The EPA may reconsider determinations of impracticality when additional information is available for any particular VCS.

No VCS were identified for EPA Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 4, 5, 5D, 17 or 26A. One VCS was identified as an acceptable alternative to EPA Methods 3B, 29 and 30B.

The EPA is allowing use of the VCS ASTM D6784–16, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)" as an acceptable alternative to EPA Method 29 (Hg portion only) as a method for measuring Hg concentrations ranging from approximately 0.5 to 100 micrograms per normal cubic meter ($\mu\text{g}/\text{Nm}^3$). This test method describes equipment and procedures for obtaining samples from effluent ducts and stacks, equipment and procedures for laboratory analysis, and procedures for calculating results. VCS ASTM D6784–16 allows for additional flexibility in the sampling and analytical procedures from the earlier version of the same standard VCS ASTM D6784–02 (Reapproved 2008). VCS ASTM D6784–16 allows for the use of either an EPA Method 17 sampling configuration with a fixed (single) point where the flue gas is not stratified, or an EPA Method 5 sampling configuration with a multi-point traverse. For this action, only the EPA Method 5 sampling configuration with a multi-point traverse can be used. This method is available at ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959. See <https://www.astm.org/>. The standard is available to everyone at a cost

determined by ASTM (\$82). The cost of obtaining this method is not a significant financial burden, making the method reasonably available. Additional detailed information on the VCS search and determination can be found in the memorandum, *Voluntary Consensus Standard Results for National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing*, which is available in the docket for this action. The EPA solicited comment on potentially applicable VCS in the proposal for this rule. However, no other VCS were identified. The EPA is finalizing as proposed incorporating by reference the VCS ASTM D6784–16, "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method)," as an acceptable alternative to EPA Method 29 (Hg portion only).

H. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations and Executive Order 14096: Revitalizing Our Nation's Commitment to Environmental Justice for All

The EPA believes that the human health or environmental conditions that exist prior to this action result in or have the potential to result in disproportionate and adverse human health or environmental effects on communities with EJ concerns. The assessment of populations in close proximity of taconite iron ore processing plants shows Native American and low-income populations are higher than the national average (see section IV.E of this preamble). The higher percentages of Native American populations are near the UTAC and Minntac facilities. The higher percentages of low-income populations are near the Keetac, Hibbing, Minorca, and Minntac facilities. The EPA believes that this action is likely to reduce existing disproportionate and adverse effects on low-income populations and/or indigenous peoples. The EPA is finalizing new MACT standards for Hg and revised standards for HCl and HF. The EPA expects that at least five facilities would have to implement control measures to reduce Hg emissions to comply with the new Hg MACT standard (including the UTAC, Keetac, Hibbing, Minorca and Minntac facilities) and one facility would need to implement control measures to reduce HCl emissions to comply with the revised standard for HCl (the Tilden facility). HAP exposures for indigenous peoples and low-income individuals

living near these six facilities would decrease. The methodology and the results of the demographic analysis are available in the docket for this action in the technical report *Analysis of Demographic Factors For Populations Living Near Taconite Iron Ore Processing Source Category Operations*.

I. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

Executive Order 13045 (62 FR 19885; April 23, 1997) directs Federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in Federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because it is not significant as defined in Executive Order 12866(3)(f)(1), and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. In 2020, the EPA conducted a residual risk assessment and determined that risk from the Taconite Iron Ore Processing source category was acceptable, and the standards provided an ample margin of safety to protect public health (see 85 FR 45476 and Docket ID No. EPA-HQ-OAR-2017-0664-0163). For this rulemaking, we updated that risk analysis using new emissions data that the EPA received for some HAP emissions sources at the taconite facilities. We determined that these new HAP emissions estimates would not significantly change our previous estimates of the human health risk posed by the Taconite Iron Ore Processing source category. In this action the EPA is promulgating new emission standards for one previously unregulated pollutant (Hg) and revised emissions standards for two currently regulated pollutants (HCl and HF). These emissions standards will reduce Hg, HCl and HF emissions and thereby reduce children's exposure to these harmful HAP. We estimate that the installation of controls will reduce HCl and HF emissions by 683 tpy and 36 tpy, respectively, and will reduce Hg emissions by up to 247 pounds per year (0.12 tpy).

This action's health and risk assessments are protective of the most vulnerable populations, including children, due to how we determine exposure and through the health benchmarks that we use. Specifically, the risk assessments we perform assume a lifetime of exposure, in which populations are conservatively

presumed to be exposed to airborne concentrations at their residence continuously, 24 hours per day for a 70-year lifetime, including childhood. With regards to children's potentially greater susceptibility to noncancer toxicants, the assessments rely on the EPA's (or comparable) hazard identification and dose-response values that have been developed to be protective for all subgroups of the general population, including children. For more information on the risk assessment methods, see the risk report for the July 28, 2020, final Taconite residual risk and technology review (RTR) rule (85 FR 45476), which is available in the docket. Therefore, the rulemaking finalizes actions that will result in health benefits to children by reducing the level of HAP emissions emitted from taconite iron ore processing plants.

J. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. We have concluded that this action is not likely to have any adverse energy effects because it contains no regulatory requirements that will have an adverse impact on productivity, competition, or prices in the energy sector.

K. Congressional Review Act (CRA)

This action is subject to the CRA, and the EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

List of Subjects in 40 CFR Part 63

Environmental protection, air pollution control, hazardous substances, incorporation by reference, mercury, hydrogen chloride, hydrogen fluoride, reporting and recordkeeping requirements.

Michael S. Regan,
Administrator.

For the reasons stated in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES

■ 1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart A—General Provisions

■ 2. Section 63.14 is amended by revising paragraph (i)(104) to read as follows:

§ 63.14 Incorporation by reference

* * * * *

(i) * * *
 (104) ASTM D6784–16, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), Approved March 1, 2016; IBR approved for §§ 63.9621(d); table 5 to subpart UUUUU; appendix A to subpart UUUUU.

Subpart RRRRR—National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing

■ 3. Section 63.9583 is revised and republished to read as follows:

§ 63.9583 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you no later than October 30, 2006, except as specified in paragraph (f) of this section.

(b) If you have a new affected source and its initial startup date is on or before October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you by October 30, 2003, except as specified in paragraph (f) of this section.

(c) If you have a new affected source and its initial startup date is after October 30, 2003, you must comply with each emission limitation, work practice standard, and operation and maintenance requirement in this subpart that applies to you upon initial startup, except as specified in paragraph (f) of this section.

(d) If your taconite iron ore processing plant is an area source that becomes a major source of HAP, the compliance dates in paragraphs (d)(1) and (2) of this section apply to you.

(1) Any portion of the taconite iron ore processing plant that is a new affected source or a new reconstructed source must be in compliance with this subpart upon startup.

(2) All other parts of the taconite iron ore processing plant must be in compliance with this subpart no later than 3 years after the plant becomes a major source.

(e) You must meet the notification and schedule requirements in § 63.9640. Several of these notifications must be submitted before the compliance date for your affected source.

(f) If you have an affected indurating furnace that commenced construction before May 15, 2023, you must comply with the requirements in paragraphs (f)(1) through (7) of this section by March 8, 2027. If you have an affected indurating furnace that commenced construction or reconstruction on or after May 15, 2023, you must comply with the requirements in paragraphs (f)(1) through (7) of this section by March 6, 2024 or the date of initial startup, whichever is later.

(1) All applicable emission limits for mercury, hydrogen chloride, and hydrogen fluoride in tables 2 and 3 to this subpart.

(2) All applicable operating limits in § 63.9590(b)(5) through (8), established in accordance with § 63.9622(g) through (i), for each control device used to comply with the mercury, hydrogen chloride, and hydrogen fluoride emission limits.

(3) All applicable compliance requirements in §§ 63.9600, 63.9610, 63.9623, 63.9625, and 63.9637(a).

(4) The applicable performance testing or continuous emissions monitoring system (CEMS) requirements for mercury in §§ 63.9620(k), 63.9621(d), and 63.9630.

(5) All applicable performance testing requirements in §§ 63.9620(l), 63.9621(d), and 63.9630.

(6) The requirements to install and maintain monitoring equipment in § 63.6332(g) through (i) and the monitoring requirements in §§ 63.9631, 63.9633, and 63.9634 for each control device used to comply with the mercury, hydrogen chloride and hydrogen fluoride emission limits.

(7) The notification, reporting and recordkeeping requirements in §§ 63.9640, 63.9641, 63.9642, and 63.9643 applicable to the mercury, hydrogen chloride, and hydrogen fluoride emission standards.

■ 4. Section 63.9590 is revised and republished to read as follows:

§ 63.9590 What emission limitations and operating limits must I meet?

(a) You must meet each emission limit in tables 1 through 3 to this subpart that applies to you by the applicable compliance date specified in § 63.9583.

(b) You must meet each applicable operating limit for control devices in paragraphs (b)(1) through (8) of this section that applies to you by the applicable compliance date specified in § 63.9583. You are not required to

establish and comply with operating limits for control devices used to reduce mercury emissions when you are using a CEMS to monitor and demonstrate compliance with the mercury emission limit in table 2 to this subpart.

(1) Except as provided in paragraph (b)(2) of this section, for each wet scrubber applied to meet any particulate matter emission limit in table 1 to this subpart, you must maintain the daily average pressure drop and daily average scrubber water flow rate at or above the minimum levels established in § 63.9622.

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber applied to meet any particulate matter emission limit in table 1 to this subpart, you must maintain the daily average scrubber water flow rate and either the daily average fan amperage (a surrogate for fan speed as revolutions per minute) or the daily average pressure drop at or above the minimum levels established during the initial performance test. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber applied to meet any particulate matter emission limit in table 1 to this subpart, you must maintain the daily average scrubber water flow rate and the daily average fan amperage (a surrogate for fan speed as revolutions per minute) at or above the minimum levels established in § 63.9622.

(3) For each dry electrostatic precipitator (ESP) applied to meet any particulate matter emission limit in Table 1 to this subpart, you must meet the operating limits in paragraph (b)(3)(i) or (ii) of this section.

(i) Maintain the 6-minute average opacity of emissions exiting the control device stack at or below the level established during the initial performance test.

(ii) Maintain the daily average secondary voltage and daily average secondary current for each field at or above the minimum levels established during the initial performance test.

(4) For each wet ESP applied to meet any particulate matter emission limit in table 1 to this subpart, you must meet the operating limits in paragraphs (b)(4)(i) through (iii) of this section.

(i) Maintain the daily average secondary voltage for each field at or

above the minimum levels established during the initial performance test.

(ii) Maintain the daily average stack outlet temperature at or below the maximum levels established during the initial performance test.

(iii) Maintain the daily average water flow rate at or above the minimum levels established during the initial performance test.

(5) For each wet scrubber and wet ESP used to meet the hydrogen chloride and hydrogen fluoride emission limits in table 3 to this subpart, you must maintain the daily average scrubber water flow rate and pH greater than or equal to the operating limits established for these parameters established in § 63.9622.

(6) For each activated carbon injection (ACI) system used to meet the mercury emission limit in table 2 to this subpart, you must maintain the daily average activated carbon injection rate greater than or equal to the average activated carbon injection rate established during the most recent performance test demonstrating compliance with the applicable emission limit. In addition, you must maintain the daily average carrier gas flow rate greater than or equal to the average carrier gas flow rate established during the most recent performance test demonstrating compliance with the applicable emission limit.

(7) For each dry sorbent injection (DSI) system used to meet the hydrogen chloride and hydrogen fluoride emission limits in table 3 to this subpart, you must maintain the daily average dry sorbent injection rate greater than or equal to the average dry sorbent injection rate established during the most recent performance test demonstrating compliance with the applicable emission limit. In addition, you must maintain the daily average carrier gas flow rate greater than or equal to the average carrier gas flow rate established during the most recent performance test demonstrating compliance with the applicable emission limit.

(8) If you use any air pollution control device other than a baghouse, wet scrubber, dynamic scrubber, dry ESP, wet ESP, ACI, or DSI, you must submit a site-specific monitoring plan in accordance with § 63.9631(f).

(c) You may petition the Administrator for approval of alternatives to the monitoring requirements in paragraphs (b)(1) through (7) of this section as allowed under § 63.8(f) and as defined in § 63.90.

■ 5. Section 63.9600 is amended by revising paragraph (b) introductory text to read as follows:

§ 63.9600 What are my operation and maintenance requirements?

(b) You must prepare, and at all times, operate according to, a written operation and maintenance plan for each control device applied to meet any particulate matter emission limit in table 1 to this subpart, mercury emission limit in table 2 to this subpart, hydrogen chloride and hydrogen fluoride emission limit in table 3 to this subpart, and to meet the requirement of each indurating furnace subject to good combustion practices (GCP). Each site-specific operation and maintenance plan must be submitted to the Administrator on or before the compliance date that is specified in § 63.9583 for your affected source. The plan you submit must explain why the chosen practices (*i.e.*, quantified objectives) are effective in performing corrective actions or GCP in minimizing the formation of formaldehyde (and other products of incomplete combustion). The Administrator will review the adequacy of the site-specific practices and objectives you will follow and the records you will keep to demonstrate compliance with your Plan. If the Administrator determines that any portion of your operation and maintenance plan is not adequate, we can reject those portions of the plan, and request that you provide additional information addressing the relevant issues. In the interim of this process, you will continue to follow your current site-specific practices and objectives, as submitted, until your revisions are accepted as adequate by the Administrator. You must maintain a current copy of the operation and maintenance plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart. Each operation and maintenance plan must address the elements in paragraphs (b)(1) through (4) of this section.

■ 6. Section 63.9610 is amended by revising paragraph (a) introductory text and adding paragraph (d) to read as follows:

§ 63.9610 What are my general requirements for complying with this subpart?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must be in compliance with the requirements in paragraphs (a)(1) through (6) of this section at all times, except during periods of startup, shutdown, and

malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, for affected sources that commenced construction or reconstruction after September 25, 2019, you must be in compliance with the emission limitations, standards, and operation and maintenance requirements for the particulate matter emission standards in this subpart at all times.

(d) On and after the applicable compliance date specified in § 63.9583(f), you must be in compliance with all applicable emission limitations for mercury, hydrogen chloride and hydrogen fluoride in tables 2 and 3 to this subpart and with the requirements in paragraphs (d)(1) through (6) of this section at all times.

(1) All applicable operating limits in § 63.9590(b)(5) through (8).

(2) All applicable operation and maintenance requirements in § 63.9600 for control devices and monitoring equipment used to comply with the emissions limits.

(3) The requirements in § 63.9631(j), if you use emissions averaging to demonstrate compliance with the mercury standards.

(4) The requirements in § 63.9631(k), if you use continuous emissions monitoring system(s) (CEMS) to demonstrate compliance with the mercury standards.

(5) The requirements in § 63.9634(n), if you elect to adjust the activated carbon injection rate based on the taconite pellet production rate.

(6) The notification, reporting and recordkeeping requirements in §§ 63.9640 through 63.9643.

■ 7. Section 63.9620 is amended by:

■ a. Revising paragraphs (b)(2) and (f)(2); and

■ b. Adding paragraphs (k) and (l).

The revisions and addition read as follows:

§ 63.9620 On which units and by what date must I conduct performance tests or other initial compliance demonstrations?

(b) * * *

(2) Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583. Performance tests conducted between October 30, 2003, and no later than 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an

indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

(f) * * *

(2) All emission units within a group must also have the same type of air pollution control device (*e.g.*, wet scrubbers, dynamic wet scrubbers, rotoclones, multiclones, wet and dry ESP, and baghouses). You cannot group emission units with different air pollution control device types together for the purposes of this section.

(k) For each indurating furnace, you must demonstrate initial compliance with the mercury emission limits in table 2 to this subpart in accordance with the procedures specified in either paragraph (k)(1) or (2) of this section.

(1) Complete an initial performance test on all stacks associated with each indurating furnace no later than 180 calendar days after the compliance date specified in § 63.9583(f). Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

(2) You may use a 30-day rolling average of the 1-hour arithmetic average CEMS data. You must conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system. The initial performance evaluation must be conducted prior to collecting CEMS data

that will be used for the initial compliance demonstration.

(l) For each indurating furnace, you must demonstrate initial compliance with the emission limits in table 3 to this subpart by conducting initial performance tests for hydrogen chloride and hydrogen fluoride on all stacks associated with each indurating furnace. Initial performance tests must be completed no later than 180 calendar days after the compliance date specified in § 63.9583(f). Performance tests conducted between March 6, 2024 and 180 days after the corresponding compliance date can be used for initial compliance demonstration, provided the tests meet the initial performance testing requirements of this subpart. For an indurating furnace with multiple stacks, the performance tests for all stacks must be completed within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable) operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be conducted within 7 calendar days, the Administrator must be notified within 24 hours of making that determination.

■ 8. Section 63.9621 is amended by:

- a. Revising the section heading;
- b. Revising paragraphs (a) and (c) introductory text; and
- c. Adding paragraphs (d) and (e).

The revisions and additions read as follows:

§ 63.9621 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits?

(a) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must conduct each performance test that applies to your affected source according to the requirements in § 63.7(e)(1) and paragraphs (b) and (c) of this section. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must conduct each performance test that applies to your affected source, including the initial performance tests for mercury required in § 63.9620(k)(1) and the initial performance tests for hydrogen chloride and hydrogen fluoride required in § 63.9620(l), under normal operating conditions of the

affected source. The owner or operator may not conduct performance tests during periods of malfunction. The owner or operator must record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests. You must also conduct each performance test that applies to your affected source according to the requirements in paragraphs (b) and (c) of this section.

* * * * *

(c) For each ore dryer affected source and each indurating furnace affected source, you must determine compliance with the applicable emission limit for particulate matter in table 1 to this subpart by following the test methods and procedures in paragraphs (c)(1) through (2) of this section.

* * * * *

(d) For each indurating furnace subject to the initial performance testing under § 63.9620(k)(1) or (l), you must determine compliance with the applicable emission limits for mercury, hydrogen chloride and hydrogen fluoride in tables 2 and 3 to this subpart by following the test methods and procedures in paragraphs (d)(1) through (9) of this section. You are not required to complete the initial performance test for mercury emissions when you are using a CEMS in accordance with paragraph (e) of this section.

(1) The furnace must be operated at or above 90 percent of capacity throughout the duration of the performance testing. If testing cannot be performed at or above 90 percent of capacity, you must provide an explanation for the lower production rate in your performance test plan. The lower production rate must be approved by the Administrator prior to beginning performance testing. For indurating furnaces that comply with the mercury emissions limit in table 2 to this subpart by adjusting the activated carbon injection rate based on the taconite pellet production rate, you must complete the performance testing for mercury in accordance with the provisions in § 63.9634(n).

(2) Use the methods specified in paragraphs (c)(1)(i) through (iv) of this section to select sampling port locations and the number of traverse points and to determine the volumetric flow rate, dry molecular weight, and moisture content of the stack gas.

(3) Determine the concentration of mercury for each stack using Method 29 or Method 30B in 40 CFR part 60, appendix A, or the voluntary consensus standard ASTM D6784–16 (incorporated by reference, see § 63.14). For Method 29 and ASTM D6784–16, the sample volume must be at least 1.7 dry standard cubic meters (dscm) (60 dry standard cubic feet) per run. For Method 30B, each test run must be at least one hour in duration.

(4) Determine the concentration of hydrogen chloride and hydrogen fluoride for each stack using Method 26A in 40 CFR part 60, appendix A. Each test must consist of three separate runs. The minimum sample volume must be at least 2 dscm per run.

(5) During each stack test run, determine the weight of taconite pellets produced and calculate the emissions rate of each pollutant in pounds of pollutant per long ton (lb/LT) of pellets produced for each test run. The weight of taconite pellets produced must be determined by measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements. If any measurement result for any pollutant is reported as below the method detection limit, use the method detection limit as the measured emissions level for that pollutant when calculating the emission rate. If the furnace has more than one stack, calculate the total emissions rate for each test run by summing the emissions across all stacks, as shown in Equation 4.

$$E_{f,i} = \sum_{s=1}^n \frac{C_s \times Q_s}{P_f} \quad (Eq. 4)$$

Where:

$E_{f,i}$ = Emissions rate for test run “i” for all emission stacks on indurating furnace “f”, lb/LT of pellets produced,

C_s = Emission rate for stack “s” measured during test run “i” on indurating furnace “f”, lb/dscf,

Q_s = Average volumetric flow rate of stack gas measured at stack “s” during test run “i” on indurating furnace “f”, dscf/hour;

P_f = Pellets produced in indurating furnace “f” during the stack test, LT; and

n = Number of emissions stacks on furnace “f”.

(6) Calculate the average emissions rate for each furnace using the three test runs, as show in Equation 5 of this section.

$$E_f = \frac{E_1 + E_2 + E_3}{3} \quad (Eq. 5)$$

Where:

E_f = Average emission rate for indurating furnace "F", lb/LT of pellets produced,
 E_1 = Emissions rate for run 1 for indurating furnace "F", lb/LT of pellets produced,
 E_2 = Emissions rate for run 2 for indurating furnace "F", lb/LT of pellets produced, and
 E_3 = Emissions rate for run 3 for indurating furnace "F", lb/LT of pellets produced.

(7) For each indurating furnace constructed or reconstructed on or after May 15, 2023, determine compliance with the applicable mercury emission limit in table 2 to this subpart by calculating the average emissions rate from the three test runs performed on the furnace using Equations 4 and 5 of this section.

(8) For each indurating furnace constructed or reconstructed before May 15, 2023, you must determine compliance with the applicable mercury emission limit in accordance with the procedures specified in either paragraph (d)(8)(i) or (ii) of this section.

(i) Determine compliance with the mercury limit for individual furnaces in table 2 to this subpart by calculating the average mercury emissions rate for each affected indurating furnace using Equations 4 and 5 of this section, or

(ii) Determine compliance with the mercury limit for groups of indurating furnaces in table 2 to this subpart in accordance with the method in § 63.9623(d).

(9) Determine compliance with the applicable hydrogen chloride and hydrogen fluoride emission limits in table 3 to this subpart by calculating the average emissions rate for each indurating furnace for the three test runs performed on the furnace using Equations 4 and 5 of this section.

(e) For each indurating furnace using mercury CEMS to demonstrate compliance with the applicable emission limits for mercury, you must determine compliance with the applicable mercury limit in table 2 to this subpart by using a 30-day rolling average of the 1-hour arithmetic average CEMS data, including CEMS data during startup and shutdown as defined in this subpart. The mercury CEMS must be installed, calibrated, maintained, and operated as accordance with the requirements in § 63.9631(j).

■ 9. Section 63.9622 is revised and republished to read as follows:

§ 63.9622 What test methods and other procedures must I use to establish and demonstrate initial compliance with the operating limits?

(a) For wet scrubbers subject to performance testing in § 63.9620 and operating limits for pressure drop and scrubber water flow rate in

§ 63.9590(b)(1), you must establish site-specific operating limits according to the procedures in paragraphs (a)(1) through (3) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the pressure drop and scrubber water flow rate every 15 minutes during each run of the particulate matter performance test.

(2) Calculate and record the average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are established as the lowest average pressure drop and the lowest average scrubber water flow rate corresponding to any of the three test runs, except as specified in paragraph (g)(2) of this section.

(3) If a rod-deck venturi scrubber is applied to an indurating furnace to meet any particulate matter emission limit in table 1 to this subpart, you may establish a lower average pressure drop operating limit by using historical average pressure drop data from a certified performance test completed on or after December 18, 2002 instead of using the average pressure drop value determined during the initial performance test, as specified in paragraph (a)(2) of this section. If historical average pressure drop data are used to establish an operating limit (*i.e.*, using data from a certified performance test conducted prior to the promulgation date of the final rule), then the average particulate matter concentration corresponding to the historical performance test must be at or below the applicable indurating furnace emission limit, as listed in table 1 to this subpart.

(b) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for dynamic wet scrubbers subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in § 63.9590(b)(2), you must establish site-specific operating limits according to the procedures in paragraphs (b)(1) and (2) of this section. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for dynamic wet scrubbers subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and fan amperage in § 63.9590(b)(2), you must establish site-specific operating limits according to the procedures in paragraphs (b)(1) and (2) of this section.

(1) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and either the fan amperage or pressure drop every 15 minutes during each run of the particulate matter performance test. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and the fan amperage every 15 minutes during each run of the particulate matter performance test.

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, calculate and record the average scrubber water flow rate and either the average fan amperage or the average pressure drop for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and either the lowest average fan amperage or pressure drop value corresponding to any of the three test runs. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, calculate and record the average scrubber water flow rate and the average fan amperage for each individual test run. Your operating limits are established as the lowest average scrubber water flow rate and the lowest average fan amperage value corresponding to any of the three test runs, except as specified in paragraph (g)(2) of this section.

(c) For a dry ESP subject to performance testing in § 63.9620 and operating limits in § 63.9590(b)(3), you must establish a site-specific operating limit according to the procedures in paragraphs (c)(1) or (2) of this section.

(1) If the operating limit for your dry ESP is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (c)(1)(i) through (iii) of this section.

(i) Using the continuous opacity monitoring system (COMS) required in § 63.9631(d)(1), measure and record the opacity of emissions from each control device stack during the particulate matter performance test.

(ii) Compute and record the 6-minute opacity averages from 24 or more data points equally spaced over each 6-minute period (e.g., at 15-second intervals) during the test runs.

(iii) Using the opacity measurements from a performance test that meets the emission limit, determine the opacity value corresponding to the 99 percent upper confidence level of a normal distribution of the 6-minute opacity averages.

(2) If the operating limit for your dry ESP is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (c)(2)(i) and (ii) of this section.

(i) Using the CPMS required in § 63.9631(d)(2), measure and record the secondary voltage and secondary current for each dry ESP field every 15 minutes during each run of the particulate matter performance test.

(ii) Calculate and record the average secondary voltage and secondary current for each dry ESP field for each individual test run. Your operating limits are established as the lowest average secondary voltage and secondary current value for each dry ESP field corresponding to any of the three test runs.

(d) For a wet ESP subject to performance testing in § 63.9620 and operating limit in § 63.9590(b)(4), you must establish a site-specific operating limit according to the procedures in paragraphs (d)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(e), measure and record the parametric values in paragraphs (d)(1)(i) through (iii) of this section for each wet ESP field every 15 minutes during each run of the particulate matter performance test.

- (i) Secondary voltage;
- (ii) Water flow rate; and
- (iii) Stack outlet temperature.

(2) For each individual test run, calculate and record the average value for each operating parameter in paragraphs (d)(1)(i) through (iii) of this section for each wet ESP field. Your operating limits are established as the lowest average value for each operating parameter of secondary voltage and water flow rate corresponding to any of the three test runs, and the highest average value for each stack outlet temperature corresponding to any of the three test runs.

(e) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry ESP, wet ESP, or baghouse, and it is subject to performance testing in § 63.9620, you must submit a site-specific monitoring plan in accordance with § 63.9631(f).

The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(f) You may change the operating limits for any air pollution control device as long as you meet the requirements in paragraphs (f)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emission limitation in table 1 to this subpart.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) through (e) of this section.

(g) For wet scrubbers and wet ESPs subject to performance testing in § 63.9620(l) and operating limits for scrubber water flow rate and pH in § 63.9590(b)(5), you must establish site-specific operating limits according to the procedures in paragraphs (g)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the scrubber water flow rate and pH of the scrubber water effluent every 15 minutes during each run of the performance test for hydrogen chloride and hydrogen fluoride.

(2) Calculate and record the average scrubber water flow rate and average pH of the scrubber water effluent for each individual test run. Your operating limit must be established as the average scrubber water flow rate and average pH of the scrubber water of the three test runs. If a higher average flow rate is measured during the most recent PM performance test, the operating limit for the daily average scrubber water flow rate is the average scrubber water flow rate measured during the most recent PM performance test. If a higher average flow rate is measured during the most recent HCl and HF performance test, the operating limit for the daily average scrubber water flow rate is the average scrubber water flow rate measured during the most recent HCl and HF performance test.

(h) For ACI systems subject to performance testing in § 63.9620(k)(1) and operating limits for activated carbon sorbent injection rate and carrier gas flow rate in § 63.9590(b)(6), you must establish site-specific operating limits according to the procedures in paragraphs (h)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the activated carbon injection rate and

carrier gas flow rate every 15 minutes during each run of the performance test for mercury.

(2) Calculate and record the average activated carbon injection rate and carrier gas flow rate for each individual test run. Your operating limit must be established as the highest activated carbon injection rate and carrier gas flow rate of the three test runs.

(i) For DSI systems subject to performance testing in § 63.9620(l) and operating limits for sorbent injection rate and carrier gas flow rate in § 63.9590(b)(7), you must establish site-specific operating limits according to the procedures in paragraphs (i)(1) and (2) of this section.

(1) Using the CPMS required in § 63.9631(b), measure and record the sorbent injection rate and carrier gas flow rate every 15 minutes during each run of the performance test for hydrogen chloride and hydrogen fluoride.

(2) Calculate and record the average sorbent injection rate and carrier gas flow rate for each individual test run. Your operating limit must be established as the highest average sorbent injection rate and carrier gas flow rate of the three test runs.

■ 10. Section 63.9623 is revised and republished to read as follows:

§ 63.9623 How do I demonstrate initial compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in tables 1 through 3 to this subpart, you must demonstrate initial compliance by meeting the emission limit requirements in paragraphs (a)(1) through (8) of this section by the compliance date specified in § 63.9583.

(1) For ore crushing and handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(a) and 63.9621(b), must not exceed the emission limits in table 1 to this subpart.

(2) For indurating furnaces, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(b) and 63.9621(c), must not exceed the emission limits in table 1 to this subpart.

(3) For finished pellet handling, the flow-weighted mean concentration of particulate matter, determined according to the procedures in §§ 63.9620(c) and 63.9621(b), must not exceed the emission limits in table 1 to this subpart.

(4) For ore dryers, the flow-weighted mean concentration of particulate matter, determined according to the

procedures in §§ 63.9620(d) and 63.9621(c), must not exceed the emission limits in table 1 to this subpart.

(5) For indurating furnaces not using emissions averaging, the mercury emissions determined according to the procedures in §§ 63.9620(k)(1) or (2) and 63.9621(d), must not exceed the applicable emission limit in table 2 to this subpart.

(6) For indurating furnaces that comply with the mercury emissions limit using emissions averaging, the average mercury emissions determined according to the procedures in §§ 63.9620(k)(1) or (2), 63.9621(d) and 63.9634(m), must not exceed the applicable emission limit in table 2 to this subpart.

(7) For indurating furnaces that comply with the mercury emissions limit by adjusting the activated carbon injection rate based on the taconite pellet production rate, the mercury emissions determined according to the procedures in §§ 63.9620(k)(1) or (2), 63.9621(d) or (e), and 63.9634(n), must not exceed the applicable emission limit in table 2 to this subpart.

(8) For indurating furnaces, the hydrogen chloride and hydrogen fluoride emissions determined according to the procedures in §§ 63.9620(l) and 63.9621(d), must not exceed the applicable emission limit in table 3 to this subpart.

(b) For each affected source subject to an emission limit in table 1 to this subpart, you must demonstrate initial compliance by meeting the operating limit requirements in paragraphs (b)(1) through (5) of this section.

(1) For each wet scrubber subject to performance testing in § 63.9620 and operating limits for pressure drop and scrubber water flow rate in § 63.9590(b)(1), you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with § 63.9622(a).

(2) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each dynamic wet scrubber subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and either fan amperage or pressure drop in § 63.9590(b)(2), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and either the fan amperage or pressure drop value, measured during the performance test in accordance with § 63.9622(b). After January 28, 2022, for affected sources

that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each dynamic wet scrubber subject to performance testing in § 63.9620 and operating limits for scrubber water flow rate and fan amperage in § 63.9590(b)(2), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and the fan amperage value, measured during the performance test in accordance with § 63.9622(b).

(3) For each dry ESP subject to performance testing in § 63.9620 and one of the operating limits in § 63.9590(b)(3), you must meet the requirements in paragraph (b)(3)(i) or (ii) of this section.

(i) If you are subject to the operating limit for opacity in § 63.9590(b)(3)(i), you have established appropriate site-specific operating limits and have a record of the opacity measured during the performance test in accordance with § 63.9622(c)(1).

(ii) If you are subject to the operating limit for secondary voltage and secondary current in § 63.9590(b)(3)(ii), you have established appropriate site-specific operating limits and have a record of the secondary voltage and secondary current measured during the performance test in accordance with § 63.9622(c)(2).

(4) For each wet ESP subject to performance testing in § 63.9620 and operating limits for secondary voltage, water flow rate, and stack outlet temperature in § 63.9590(b)(4), you have established appropriate site-specific operating limits and have a record of the secondary voltage, water flow rate, and stack outlet temperature measured during the performance test in accordance with § 63.9622(d).

(5) For other air pollution control devices subject to performance testing in § 63.9620 and operating limits in accordance with § 63.9590(b)(8), you have submitted a site-specific monitoring plan in accordance with § 63.9631(f) and have a record of the site-specific operating limits as measured during the performance test in accordance with § 63.9622(e).

(c) Except as specified in paragraph (e) of this section, you must demonstrate initial compliance with the emission limits in tables 2 and 3 to this subpart, by meeting the operating limit requirements in paragraphs (c)(1) through (3) of this section.

(1) For each wet scrubber and wet ESP subject to performance testing in

§ 63.9620(k) and operating limits for scrubber water flow rate and pH in § 63.9590(b)(5), you have established appropriate site-specific operating limits and have a record of the scrubber water flow rate and pH measured during the performance test in accordance with § 63.9622(g).

(2) For each ACI subject to performance testing in § 63.9620(k) and operating limits for activated carbon injection rate and carrier gas flow rate in § 63.9590(b)(6), you have established appropriate site-specific operating limits and have a record of the activated carbon injection rate and carrier gas flow rate measured during the performance test in accordance with § 63.9622(i). (3) For each DSI subject to performance testing in § 63.9620(k) and operating limits for sorbent injection rate and carrier gas flow rate in § 63.9590(b)(7), you have established appropriate site-specific operating limit and have a record of the sorbent injection rate and carrier gas flow rate measured during the performance test in accordance with § 63.9622(h).

(d) If you elect to comply with the mercury limit in table 2 to this subpart using emissions averaging for indurating furnaces constructed or reconstructed before May 15, 2023, you must comply with the requirements in paragraphs (d)(1) through (4) of this section.

(1) Before submitting the implementation plan required in paragraph (d)(3) of this section, you must complete the mercury stack testing required in § 63.9620(k)(1) or install, calibrate, and operate a mercury CEMS pursuant to § 63.9620(k)(2) and paragraph (e) of this section for all indurating furnaces you wish to include in the mercury emission average.

(2) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan for mercury emission averaging no later than 180 days before the date you intend to demonstrate compliance using the emission averaging option. You must include the information contained in paragraphs (d)(2)(i) through (iii) of this section in your implementation plan.

(i) Identification of all indurating furnaces in the averaging group, including the typical taconite pellet production rate, control technology installed, and types of fuel(s) that will be burned.

(ii) The mercury emission rate for each furnace for each of the fuels identified in paragraph (d)(2)(i) of this section.

(iii) The date on which you are requesting emission averaging to commence.

(3) The regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all the information specified in paragraph (d)(2) of this section, and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Averaging that includes indurating furnaces constructed or reconstructed on or after May 15, 2023, or

(ii) Averaging between indurating furnaces located at different facilities.

(e) If you elect to demonstrate compliance with the mercury limit in table 2 to this subpart using a mercury CEMS, you must calculate the 30-day rolling average of 1-hour arithmetic average emission concentrations, including CEMS data during startup and shutdown, calculated using equation 19–19 in section 12.4.1 of EPA

Reference Method 19 at appendix A–7 of 40 CFR part 60. The 1-hour arithmetic averages for CEMS must be calculated using the data points required under § 63.8(c)(4)(ii).

(f) For each emission limitation and operating limit that applies to you, you must submit a notification of compliance status according to § 63.9640(e).

■ 11. Section 63.9630 is amended by revising paragraphs (b) and (e)(2) to read as follows:

§ 63.9630 When must I conduct subsequent performance tests?

* * * * *

(b) You must conduct subsequent performance tests on all stacks associated with indurating furnaces to demonstrate continued compliance with the indurating furnace emission limits in tables 1 through 3 to this subpart according to the schedule developed by your permitting authority and shown in your title V permit, but no less frequent than twice per 5-year permit term. If a title V permit has not been issued, you must submit a testing plan and schedule, containing the information specified in paragraph (e) of this section, to the permitting authority for approval. For an indurating furnace with multiple stacks, the performance tests for all stacks must be conducted within 7 calendar days of commencement of the performance tests, to the extent practicable, and the indurating furnace and associated control device (where applicable)

operating characteristics must remain representative and consistent for the duration of the stack tests. If you determine that the performance tests cannot be completed within 7 calendar days, the Administrator must be notified within 24 hours of making that determination. Performance testing for mercury is not required for furnaces using CEMS to demonstrate compliance with the mercury emission limits in table 2 to this subpart.

* * * * *

(e) * * *

(2) A schedule indicating when you will conduct subsequent performance tests for particulate matter, mercury, hydrogen chloride and hydrogen fluoride for each of the emission units.

■ 12. Section 63.9631 is amended by:

■ a. Revising and republishing paragraphs (d) through (f); and

■ b. Adding paragraphs (g) through (k).

The revisions and additions read as follows:

§ 63.9631 What are my monitoring requirements?

* * * * *

(d) For each dry ESP subject to the operating limits in § 63.9590(b)(3), you must follow the monitoring requirements in paragraph (d)(1) or (2) of this section.

(1) If the operating limit you choose to monitor is the 6-minute average opacity of emissions in accordance with § 63.9590(b)(3)(i), you must install, operate, and maintain a COMS according to the requirements in § 63.9632(f) and monitor the 6-minute average opacity of emissions exiting each control device stack according to the requirements in § 63.9633.

(2) If the operating limit you choose to monitor is average secondary voltage and average secondary current for each dry ESP field in accordance with § 63.9590(b)(3)(ii), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average secondary voltage and daily average secondary current according to the requirements in § 63.9633.

(e) For each wet ESP subject to the operating limits in § 63.9590(b)(4), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(b) through (e) and monitor the daily average secondary voltage, daily average stack outlet temperature, and daily average water flow rate according to the requirements in § 63.9633.

(f) For each wet scrubber and wet ESP subject to the operating limits in § 63.9590(b)(5), you must install, operate, and maintain a CPMS

according to the requirements in § 63.9632(g) and monitor the daily average scrubber water flow rate and pH of the scrubber water effluent.

(g) For each ACI system subject to the operating limits in § 63.9590(b)(6), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(h) and (i) and monitor the daily average activated carbon injection rate and carrier gas flow rate.

(h) For each DSI system subject to the operating limits in § 63.9590(b)(7), you must install, operate, and maintain a CPMS according to the requirements in § 63.9632(h) and (i) and monitor the daily average sorbent injection rate and carrier gas flow rate.

(i) If you use any air pollution control device other than a baghouse, wet scrubber, dry ESP, wet ESP, DSI, or ACI, you must submit a site-specific monitoring plan that includes the information in paragraphs (i)(1) through (4) of this section. The monitoring plan is subject to approval by the Administrator. You must maintain a current copy of the monitoring plan onsite, and it must be available for inspection upon request. You must keep the plan for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

(1) A description of the device.

(2) Test results collected in accordance with § 63.9621 verifying the performance of the device for reducing emissions of particulate matter, mercury, hydrogen chloride, and hydrogen fluoride to the atmosphere to the levels required by this subpart.

(3) A copy of the operation and maintenance plan required in § 63.9600(b).

(4) Appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s).

(j) If you elect to comply with the mercury limit in table 2 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in § 63.9623(d) or you elect to adjust the activated carbon injection rate based on the taconite pellet production rate in accordance with the procedures in § 63.9634(n), you must determine and record the mass of taconite pellets produced each month by each furnace included in the emissions averaging group. The weight of taconite pellets produced must be determined by measurement using weigh hoppers, belt weigh feeders, or weighed quantities in shipments, or calculated using the bulk density and volume measurements.

(k) If you elect to demonstrate compliance with the mercury emissions limits in table 2 to this subpart using a CEMS to measure mercury emissions, you must comply with the requirements in (k)(1) through (5).

(1) Notify the Administrator one month before starting use of the CEMS and notify the Administrator 180-days before ceasing use of the CEMS.

(2) Each CEMS must be installed, certified, calibrated, and maintained according to the requirements of performance specifications 6 and 12A of 40 CFR part 60, appendix B, and quality assurance procedure 6 of 40 CFR part 60, appendix F.

(3) Operate the mercury CEMS in accordance with performance specification 12A of 40 CFR part 60, appendix B. The duration of the performance test must be 30 operating days. For each day in which the unit operates, you must obtain hourly mercury concentration data, and stack gas volumetric flow rate data.

(4) You must complete the initial performance evaluation of the CEMS within 180 days after notifying the Administrator and before starting to use the CEMS data in lieu of performance testing and monitoring operating parameters to demonstrate compliance.

(5) Collect CEMS hourly averages for all operating hours on a 30-day rolling average basis. The one-hour arithmetic averages, expressed in units of lb/LT, must be used to calculate 30-day rolling average emissions to determine compliance with the applicable emission limit in table 2 to this subpart.

■ 13. Section 63.9632 is amended by:
 ■ a. Revising paragraphs (f) introductory text and (f)(2); and

■ b. Adding paragraphs (g) through (i).
 The revisions and additions read as follows:

§ 63.9632 What are the installation, operation, and maintenance requirements for my monitoring equipment?

* * * * *

(f) For each dry ESP subject to the opacity operating limit in § 63.9590(b)(3)(i), you must install, operate, and maintain each COMS according to the requirements in paragraphs (f)(1) through (4) of this section.

* * * * *

(2) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, you must develop and implement a quality control program for operating and maintaining each COMS according to § 63.8. At a minimum, the quality control program must include a daily

calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, you must develop and implement a quality control program for operating and maintaining each COMS according to § 63.8(a) and (b), (c)(1)(ii), (c)(2) through (8), (d)(1) and (2), and (e) through (g) and Procedure 3 in appendix F to 40 CFR part 60. At a minimum, the quality control program must include a daily calibration drift assessment, quarterly performance audit, and annual zero alignment of each COMS.

* * * * *

(g) For each pH measurement device, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements in paragraphs (g)(1) through (4) of this section.

(1) The minimum accuracy of the pH measurement device must be ± 0.2 pH units.

(2) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(3) Ensure the sample is properly mixed and representative of the fluid to be measured.

(4) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(h) For each mass flow rate monitor used for measuring the sorbent or activated carbon injection rate, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements of (h)(1) through (4) of this section.

(1) The minimum accuracy of the mass flow rate monitor must be ± 5 percent over the normal range of flow measured.

(2) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(3) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(4) At least annually, conduct a performance evaluation of the injection rate monitoring system in accordance with your monitoring plan.

(i) For each carrier gas flow rate monitor, in addition to the requirements in paragraphs (b) through (e) of this section, you must meet the requirements of (i)(1) through (4) of this section.

(1) The minimum accuracy of the gas flow rate monitor must be ± 5 percent over the normal range of flow measured or 280 liters per minute (10 cubic feet per minute), whichever is greater.

(2) Locate the device in a position(s) that provides a representative measurement of the carrier gas flow rate.

(3) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(4) At least annually, conduct a performance evaluation of the carrier gas flow rate monitoring system in accordance with your monitoring plan.

■ 14. Section 63.9634 is amended by revising paragraphs (a), (e)(4), (f)(4), (g) through (j) and adding paragraphs (k) through (n) to read as follows:

§ 63.9634 How do I demonstrate continuous compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission limit in table 1 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (b) through (h) of this section.

* * * * *

(e) * * *

(4) If the daily average pressure drop or daily average scrubber water flow rate is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section.

(f) * * *

(4) On or before January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if the daily average scrubber water flow rate, daily average fan amperage, or daily average pressure drop is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section. After January 28, 2022, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, if the daily average scrubber water flow rate or daily average fan amperage, is below the operating limits established for a corresponding emission unit or group of similar emission units, you must then follow the corrective action procedures in paragraph (l) of this section.

(g) For each dry ESP subject to operating limits in § 63.9590(b)(3), you

must demonstrate continuous compliance by completing the requirements of paragraph (g)(1) or (2) of this section.

(1) If the operating limit for your dry ESP is a 6-minute average opacity of emissions value, then you must follow the requirements in paragraphs (g)(1)(i) through (iii) of this section.

(i) Maintaining the 6-minute average opacity of emissions at or below the maximum level established during the initial or subsequent performance test.

(ii) Operating and maintaining each COMS and reducing the COMS data according to § 63.9632(f).

(iii) If the 6-minute average opacity of emissions is above the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(2) If the operating limit for your dry ESP is the daily average secondary voltage and daily average secondary current for each field, then you must follow the requirements in paragraphs (g)(2)(i) through (iv) of this section.

(i) Maintaining the daily average secondary voltage or daily average secondary current for each field at or above the minimum levels established during the initial or subsequent performance test.

(ii) Operating and maintaining each dry ESP CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(iii) Collecting and reducing monitoring data for secondary voltage or secondary current for each field according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(iv) If the daily average secondary voltage or daily average secondary current for each field is below the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(h) For each wet ESP subject to the operating limits for secondary voltage, stack outlet temperature, and water flow rate in § 63.9590(b)(4), you must demonstrate continuous compliance by completing the requirements of paragraphs (h)(1) through (4) of this section.

(1) Maintaining the daily average secondary voltage and daily average scrubber water flow rate for each field at or above the minimum levels established during the initial or subsequent performance test. Maintaining the daily average stack outlet temperature at or below the

maximum levels established during the initial or subsequent performance test.

(2) Operating and maintaining each wet ESP CPMS according to § 63.9632(b) and recording all information needed to document conformance with these requirements.

(3) Collecting and reducing monitoring data for secondary voltage, stack outlet temperature, and water flow rate according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(4) If the daily average secondary voltage, stack outlet temperature, or water flow rate does not meet the operating limits established for a corresponding emission unit, you must then follow the corrective action procedures in paragraph (l) of this section.

(i) For each affected indurating furnace subject to a hydrogen chloride and hydrogen fluoride emission limit in table 3 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (i)(1) and (2) of this section.

(1) For each wet scrubber and wet ESP subject to the operating limits for scrubber water flow rate and pH in § 63.9590(b)(5), you must demonstrate continuous compliance by completing the requirements of paragraphs (i)(1)(i) through (iv) of this section.

(i) Maintaining the daily average scrubber water flow rate and daily average pH of the scrubber water effluent at or above the minimum level established during the most recent performance test. If a higher average flow rate is measured during the last PM performance test, the operating limit for daily average scrubber water flow rate is the highest average scrubber water flow rate measured during the last PM performance test.

(ii) Operating and maintaining each of the CPMS used to measure scrubber water flow rate and pH according to § 63.9632(g) and recording all information needed to document conformance with these requirements.

(iii) Collecting and reducing monitoring data for scrubber water flow rate and pH according to § 63.9632(c) and recording all information needed to document conformance with these requirements.

(iv) If the daily average scrubber water flow rate or daily average pH is below the operating limits established for control device, you must follow the corrective action procedures in paragraph (l) of this section.

(2) For each DSI subject to the operating limits for sorbent injection rate and carrier gas flow rate in

§ 63.9590(b)(7), you must demonstrate continuous compliance by completing the requirements of paragraphs (i)(2)(i) through (iv) of this section.

(i) Maintain the daily average sorbent injection rate and carrier gas flow rate at or above the minimum level established during the most recent performance test.

(ii) Operate and maintain each CPMS used to measure the sorbent injection rate according to § 63.9632(h) and the carrier gas flow rate according to § 63.9632(i) and recording all information needed to document compliance with these requirements.

(iii) Collect and reduce monitoring data for the sorbent injection rate and carrier gas flow rate according to § 63.9632(c) and recording all information needed to document compliance with these requirements.

(iv) If the daily average the sorbent injection rate or carrier gas flow rate is below the operating limit established for the control device, you must follow the corrective action procedures in paragraph (l) of this section.

(j) For each affected indurating furnace using ACI to comply with the mercury emission limit in table 2 to this subpart, you must demonstrate continuous compliance by meeting the requirements of paragraphs (j)(1) or (2) of this section.

(1) If you use CEMS to demonstrate compliance, you must comply with the requirements in paragraphs (j)(1)(i) and (ii) of this section.

(i) You must operate a mercury CEMS in accordance with performance specification 12A at 40 CFR part 60, appendix B; these monitoring systems must be quality assured according to procedure 5 of 40 CFR 60, appendix F. You must demonstrate compliance with the mercury emissions limit using a 30-day rolling average of these 1-hour mercury concentrations or mass emissions rates, including CEMS data during startup and shutdown as defined in this subpart, calculated using equation 19–19 in section 12.4.1 of EPA Reference Method 19 at 40 CFR part 60, appendix A–7 of this part.

(ii) Owners or operators using a mercury CEMS to determine mass emission rate must install, operate, calibrate and maintain an instrument for continuously measuring and recording the mercury mass emissions rate to the atmosphere according to the requirements of performance specification 6 at 40 CFR part 60, appendix B and conducting an annual relative accuracy test of the continuous emission rate monitoring system according to section 8.2 of performance specification 6.

(2) If you do not use CEMS to demonstrate compliance, you must demonstrate continuous compliance by meeting the requirements of paragraphs (j)(2)(i) through (iv) of this section.

(i) Maintain the daily average activated carbon injection rate and carrier gas flow rate at or above the minimum level established during the most recent performance test.

(ii) Operate and maintain each CPMS used to measure the activated carbon injection rate according to § 63.9632(h) and the carrier gas flow rate according to § 63.9632(i), and record all information needed to document compliance with these requirements.

(iii) Collect and reduce monitoring data for the activated carbon injection rate and carrier gas flow rate according to § 63.9632(c) and record all information needed to document conformance with these requirements.

(iv) If the daily average of the activated carbon injection rate or carrier gas flow rate is below the operating limit established for the control device, you must follow the corrective action procedures in paragraph (l) of this section.

(k) If you use an air pollution control device other than a wet scrubber, dynamic wet scrubber, dry ESP, wet ESP, DSI, ACI, or baghouse, you must submit a site-specific monitoring plan in accordance with § 63.9631(f). The site-specific monitoring plan must include the site-specific procedures for demonstrating initial and continuous compliance with the corresponding operating limits.

(l) If the daily average operating parameter value for an emission unit or group of similar emission units does not meet the corresponding established operating limit, you must then follow the procedures in paragraphs (l)(1) through (4) of this section.

(1) You must initiate and complete initial corrective action within 10 calendar days and demonstrate that the initial corrective action was successful. During any period of corrective action, you must continue to monitor, and record all required operating parameters for equipment that remains in operation. After the initial corrective action, if the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful and the emission unit or group of similar emission units is in compliance with the established operating limits.

(2) If the initial corrective action required in paragraph (l)(1) of this section was not successful, then you

must complete additional corrective action within 10 calendar days and demonstrate that the subsequent corrective action was successful. During any period of corrective action, you must continue to monitor, and record all required operating parameters for equipment that remains in operation. If the daily average operating parameter value for the emission unit or group of similar emission units meets the operating limit established for the corresponding unit or group, then the corrective action was successful, and the emission unit or group of similar emission units is in compliance with the established operating limits.

(3) If the second attempt at corrective action required in paragraph (l)(2) of this section was not successful, then you must repeat the procedures of paragraph (l)(2) of this section until the corrective action is successful. If the third attempt at corrective action is unsuccessful, you must conduct another performance test in accordance with the procedures in § 63.9622(f) and report to the Administrator as a deviation the third unsuccessful attempt at corrective action.

(4) After the third unsuccessful attempt at corrective action, you must submit to the Administrator the written report required in paragraph (l)(3) of this section within 5 calendar days after the third unsuccessful attempt at corrective action. This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

(m) If you elect to comply with the mercury limit in table 2 to this subpart using emissions averaging in accordance with an implementation plan approved under the provisions in § 63.9623(d), you must comply with the requirements in paragraphs (m)(1) through (5) of this section.

(1) For furnaces included in the emissions averaging group that do not use mercury CEMS, you must comply with the requirements in paragraph (m)(1)(i) or (ii) as applicable.

(i) For furnaces equipped with ACI systems, you must comply with the requirements in paragraph (j) of this section.

(ii) For furnaces equipped with a mercury control device or method other than ACI, you must comply with your site-specific monitoring plan in accordance with the requirements in paragraph (k) of this section.

(2) For furnaces included in the emissions averaging group that use mercury CEMS, you must comply with

the requirements in paragraph (i)(1) of this section.

(3) Calculate the monthly production-weighted average emission rate using either the mercury CEMS data or mercury emission rate determined during the last performance test and the actual taconite pellet production data for each furnace included in the emissions averaging option, as shown in Equation 6 of this section.

$$E_g = \frac{\sum_{f=1}^n (E_f \times P_f)}{\sum_{f=1}^n P_f} \quad (Eq. 6)$$

Where:

E_g = Monthly production-weighted average mercury emission rate for month “g” for the group of indurating furnaces, lb/LT of pellets produced,

E_f = Average mercury emission rate for furnace “f”, as determined using either mercury CEMS data or the emission rate determined during the last compliance stack test and calculated using Equation 5 of § 63.9621(d)(7)(i), lb/LT of pellets produced,

P_f = Total monthly production of finished taconite pellets for furnace “f”, in LT, and

n = Number of furnaces in the averaging group.

(4) Until 12 monthly weighted average emission rates have been accumulated, the monthly weighted average emissions rate, calculated as shown in paragraph (m)(3) of this section, must not exceed the mercury emission limit in table 3 of this subpart in any calendar month.

(5) After 12 monthly weighted average emission rates have been accumulated, for each subsequent calendar month, you must use Equation 7 of this section to calculate the 12-month rolling average of the monthly weighted average emission rates for the current month and the previous 11 months. The 12-month rolling weighted average emissions rate for the furnaces included in the group must not exceed the mercury emission limit in table 3 of this subpart.

$$E_{avg} = \frac{\sum_{i=1}^{12} E_i}{12} \quad Eq. 7$$

Where:

E_{avg} = 12-month rolling average emission rate, lb/LT.

E_i = Monthly weighted average for month “i” calculated as shown in Equation 6 of this section.

(n) You may elect to demonstrate continuous compliance with the mercury limit in table 2 to this subpart by adjusting the activated carbon injection rate based on the taconite pellet production rate. You must comply with the requirements in

paragraphs (n)(1) through (7) of this section.

(1) Measure the activated carbon injection and mercury emissions rate at a minimum of three different production levels corresponding to the maximum, minimum and median finished taconite pellet production rates, using the methods specified in § 63.9620(k).

(2) Develop a correlation curve by plotting the production rate and corresponding carbon injection rate for the maximum, median and minimum production rates. Use only data where the mercury emission rate is below the applicable mercury emissions standard in table 2 to this subpart. Plot the production rates as the independent (or x) variable and the activated carbon injection rate as the dependent (or y) variable for each pellet production rate. Construct the graph by drawing straight line segments between each point plotted.

(3) You must develop and submit to the applicable regulatory authority for review and approval, an implementation plan no later than 180 days before the date you intend to demonstrate compliance by adjusting the activated carbon injection rate based on the taconite pellet production. You must include the information listed in paragraphs (n)(3)(i) through (iv) of this section in your implementation plan.

(i) Identification of the indurating furnace, including the typical maximum and minimum taconite pellet production rate, mercury control technology installed, and types of fuel(s) that will be burned.

(ii) The mercury emissions and activated carbon injection rates at maximum, median and minimum taconite pellet production rates, and the methods used to measure the mercury emissions, activated carbon injection rate and taconite pellet production.

(iii) The correlation curve developed in paragraph (n)(2) of this section.

(iv) The date on which you are requesting to commence adjusting the activated carbon rate based on the taconite production rate.

(4) Install, calibrate, maintain, and operate a CPMS to monitor and record the activated carbon injection rate and taconite pellet production rate.

(5) Maintain the carbon injection rate at or above the rate established by the correlation curve corresponding to the taconite pellet production rate. If the taconite pellet production rate drops below the minimum rate established in paragraph (n)(3) of this section, you must maintain the activated carbon injection rate at or above the rate

established for the minimum taconite pellet production rate.

(6) Keep records of the activated carbon injection rate and taconite pellet production rate for each hour of operation in order to demonstrate that the activated carbon injection rate remains in compliance with paragraph (n)(5) of this section.

(7) Establish a new correlation curve at least twice per 5-year permit term.

■ 15. Section 63.9636 is amended by revising paragraph (a) introductory text to read as follows:

§ 63.9636 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each control device used to comply with an emission standard in § 63.9590(a), you must demonstrate continuous compliance with the operation and maintenance requirements in § 63.9600(b) by completing the requirements of paragraphs (a)(1) through (4) of this section.

* * * * *

■ 16. Section 63.9637 is amended by revising paragraph (a) to read as follows:

§ 63.9637 What other requirements must I meet to demonstrate continuous compliance?

(a) *Deviations.* You must report each instance in which you did not meet each emission limitation in tables 1 through 3 to this subpart that applies to you. You also must report each instance in which you did not meet the work practice standards in § 63.9591 and each instance in which you did not meet each operation and maintenance requirement in § 63.9600 that applies to you. These instances are deviations from the emission limitations, work practice standards, and operation and maintenance requirements in this subpart. These deviations must be reported in accordance with the requirements in § 63.9641.

* * * * *

■ 17. Section 63.9640 is amended by adding paragraphs (f) and (g) to read as follows:

§ 63.9640 What notifications must I submit and when?

* * * * *

(f) If you elect to use CEMS to demonstrate compliance with the mercury standards in table 2 to this subpart, you must submit a notification of intent to use CEMS at least one month prior to making the change. If you are currently using CEMS to demonstrate compliance with the mercury standards, you must submit a

notification of intent to cease using CEMS to demonstrate compliance at least 180 days prior to making the change.

(g) If you elect to use the mercury emissions averaging compliance option, you must submit a notification of intent at least 180 days prior to making the change. If you are currently using the mercury emissions averaging compliance option, you must submit a notification of intent to cease using emissions averaging at least 30 days prior to making the change.

■ 18. Section 63.9641 is amended by:

■ a. Revising paragraph (b)(6);

■ b. Revising and republishing paragraph (b)(8);

■ c. Revising paragraphs (c), (e) and (f)(3); and

■ d. Adding paragraph (i).

The revisions and additions read as follows:

§ 63.9641 What reports must I submit and when?

* * * * *

(b) * * *

(6) If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or CEMS) was out-of-control as specified in § 63.8(c)(7), then provide a statement that there were no periods during which a continuous monitoring system was out-of-control during the reporting period.

* * * * *

(8) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, whichever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through

(4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section.

(i) The date and time that each malfunction started and stopped.

(ii) The start date, start time, and duration in hours (or minutes for COMS) that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The start date, start time, and duration that each continuous monitoring system was out-of-control, including the information in § 63.8(c)(8).

(iv) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, for each affected source or equipment, the date and time that each deviation started and stopped, the cause of the deviation, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, for each affected source or equipment, the date and time that each deviation started and stopped, the cause of the deviation, and whether each deviation occurred during a period of malfunction or during another period.

(v) The total duration of all deviations for each Continuous Monitoring System (CMS) during the reporting period, the total operating time in hours of the affected source during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(vi) On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, a breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes. After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, a breakdown of the total duration of the deviations during the reporting period including those that are due to control equipment problems, process problems, other

known causes, and other unknown causes.

(vii) The total duration of continuous monitoring system downtime for each continuous monitoring system during the reporting period, the total operating time in hours of the affected source during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) The monitoring equipment manufacturer and model number and the pollutant or parameter monitored.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) *Submitting compliance reports electronically.* Beginning on January 25, 2021, submit all subsequent compliance reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as confidential business information (CBI). Anything submitted using CEDRI cannot later be claimed to be CBI. You must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for this subpart. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. Although we do not expect persons to assert a claim of CBI, if persons wish to assert a CBI claim, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website. Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice.

Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. Submit the file following the procedures in paragraph (c)(1) or (2) of this section. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this paragraph (c). All CBI claims must be asserted at the time of submission. Furthermore, under CAA section 114(c) emissions data is not entitled to

confidential treatment, and EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. On or before January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan you must submit an immediate startup, shutdown and malfunction report according to the requirements in § 63.10(d)(5)(ii). After January 25, 2021, for affected sources that commenced construction or reconstruction on or before September 25, 2019, and after July 28, 2020, or upon start-up, which ever date is later, for affected sources that commenced construction or reconstruction after September 25, 2019, an immediate startup, shutdown, and malfunction report is not required.

(1) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Taconite Iron Ore Processing Sector Lead. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(2) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Taconite Iron Ore Processing Sector Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

* * * * *

(e) *Immediate corrective action report.* If you had three unsuccessful attempts of applying corrective action as described in § 63.9634(l) on an emission unit or group of emission units, then you must submit an immediate corrective action report. Within 5 calendar days after the third unsuccessful attempt at corrective action, you must submit to the Administrator a written report in

accordance with § 63.9634(l)(3) and (4). This report must notify the Administrator that a deviation has occurred and document the types of corrective measures taken to address the problem that resulted in the deviation of established operating parameters and the resulting operating limits.

(f) * * *

(3) *Confidential business information (CBI).*

(i) The EPA will make all the information submitted through CEDRI available to the public without further notice to you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information submitted under paragraph (f)(1) or (2) of this section, you must submit a complete file, including information claimed to be CBI, to the EPA.

(ii) The file must be generated using the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website.

(iii) Clearly mark the part or all of the information that you claim to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

(iv) The preferred method to receive CBI is for it to be transmitted electronically using email attachments, File Transfer Protocol, or other online file sharing services. Electronic submissions must be transmitted directly to the OAQPS CBI Office at the email address oaqpscbi@epa.gov, and as described above, should include clear CBI markings and be flagged to the attention of the Group Leader, Measurement Policy Group. If assistance is needed with submitting large electronic files that exceed the file size limit for email attachments, and if you do not have your own file sharing service, please email oaqpscbi@epa.gov to request a file transfer link.

(v) If you cannot transmit the file electronically, you may send CBI information through the postal service to the following address: U.S. EPA, Attn: OAQPS Document Control Officer and Measurement Policy Group Lead, Mail Drop: C404-02, 109 T.W. Alexander Drive, P.O. Box 12055, RTP, NC 27711. The mailed CBI material should be double wrapped and clearly marked. Any CBI markings should not show through the outer envelope.

(vi) All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be

claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available.

(vii) You must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described in § 63.9(k).

* * * * *

(i) *Use of CEMS for mercury.* If you use CEMS to demonstrate compliance with the mercury emissions limits in table 2 to this subpart, you must submit the results of the performance evaluation following the procedure specified in either paragraph (i)(1) or (2) of this section within 60 days after the date of completing each CEMS performance evaluation (as defined in § 63.2).

(1) For performance evaluations of continuous monitoring systems measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation, you must submit the results of the performance evaluation to the EPA via the CEDRI. Performance evaluation data must be submitted in a file format generated through the use of the EPA's ERT or an alternate file format consistent with the XML schema listed on the EPA's ERT website. If you claim that some of the performance evaluation information being transmitted is CBI, you must submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described earlier in this section.

(2) For any performance evaluations of continuous monitoring systems measuring RATA pollutants that are not supported by the EPA's ERT as listed on the ERT website at the time of the evaluation, you must submit the results of the performance evaluation to the Administrator at the appropriate address listed in § 63.13.

■ 19. Section 63.9642 is amended by:

- a. Revising paragraph (b) introductory text; and
- b. Adding paragraphs (b)(5), (d), (e) and (f).

The revisions and additions read as follows:

§ 63.9642 What records must I keep?

* * * * *

(b) For each COMS and CEMS, you must keep the records specified in paragraphs (b)(1) through (5) of this section.

* * * * *

(5) If you use mercury CEMS to demonstrate compliance with the mercury emission standard in table 2 of the subpart in accordance with § 63.9623(e), records of requests for alternatives to the relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

* * * * *

(d) If you elect the mercury emissions averaging compliance alternative pursuant to § 63.9623(d), you must keep a copy of the emission averaging implementation plan required in § 63.9623(d)(2), records of the taconite pellet production rate for each furnace included in the averaging, and all calculations required under § 63.9634(m).

(e) If you elect to adjust the activated carbon injection rate based on the taconite pellet production rate in accordance with the provisions in § 63.9634(n), you must keep a copy of the activated carbon injection implementation plan and records of the taconite pellet production rate and activated carbon injection rate.

(f) If you use CEMS to demonstrate compliance with the mercury emissions limits in table 2 to this subpart, you must keep records of the notifications required in § 63.9642(f).

■ 20. Section 63.9650 is revised to read as follows:

§ 63.9650 What parts of the General Provisions apply to me?

Table 4 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.16 apply to you.

■ 21. Section 63.9652 is amended by adding definitions in alphabetical order for "Activated carbon injection (ACI) system", "Dry sorbent injection (DSI) system", and "Electrostatic precipitator (ESP)" to read as follows:

§ 63.9652 What definitions apply to this subpart?

* * * * *

Activated carbon injection (ACI) system means an add-on air pollution control system in which activated carbon or brominated activated carbon is injected into the flue gas steam

upstream of a particulate matter control device to adsorb mercury in the exhaust stream. The absorbed mercury remains absorbed to the activated carbon and is collected in a primary or secondary particulate matter control device.

* * * * *

Dry sorbent injection (DSI) system means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material that is collected by a primary or secondary particulate matter control device.

* * * * *

Electrostatic Precipitator (ESP) means a device that removes suspended particulate matter from flue exhaust by applying a high-voltage electrostatic charge to the particles, which are then attracted to and collected on a grounded plate. In a dry ESP, the particles are dislodged from the plate by rapping and are collected in a hopper positioned below the plate. In a wet ESP, particulates are removed from the plate by washing with water.

* * * * *

■ 22. Revise the table heading and introductory paragraph for table 1 to subpart RRRRR of part 63 to read as follows:

Table 1 to Subpart RRRRR of Part 63—Particulate Matter Emission Limits

As required in § 63.9590(a), you must comply with each applicable particulate matter emission limit in the following table:

* * * * *

■ 22. Table 2 to subpart RRRRR is redesignated as table 4 to subpart RRRRR.

■ 23. Add a new table 2 to subpart RRRRR to read as follows:

TABLE 2 TO SUBPART RRRRR OF PART 63—MERCURY EMISSION LIMITS FOR INDURATING FURNACES

[As required in § 63.9590(a), you must comply with each applicable mercury emission limit in the following table:]

For . . .	You must meet the following emission limits . . .
1. Indurating furnaces constructed or reconstructed before May 15, 2023.	Either: (1) Mercury emissions from each furnace must not exceed 1.4×10^{-5} lb/LT of taconite pellets produced, or (2) Production-weighted average mercury emissions for a group of indurating furnaces, calculated according to Equation 6 in § 63.9634(m)(3), must not exceed 1.3×10^{-5} lb/LT.
2. Indurating furnaces constructed or reconstructed on or after May 15, 2023.	Mercury emissions from each furnace must not exceed 2.6×10^{-6} lb/LT.

■ 24. Add Table 3 to Subpart RRRRR to read as follows:

TABLE 3 TO SUBPART RRRRR OF PART 63—HYDROGEN CHLORIDE AND HYDROGEN FLUORIDE EMISSION LIMITS FOR INDURATING FURNACES

[As required in § 63.9590(a), you must comply with each applicable hydrogen chloride and hydrogen fluoride emission limit in the following table:]

For . . .	You must meet the following emission limits . . .
1. Indurating furnaces constructed or reconstructed before May 15, 2023.	Hydrogen chloride emissions must not exceed 4.6×10^{-2} lb/Long Ton of taconite pellets produced. Hydrogen fluoride emissions must not exceed 1.2×10^{-2} lb/Long Ton of taconite pellets produced.
2. Indurating furnaces constructed or reconstructed on or after May 15, 2023.	Hydrogen chloride emissions must not exceed 4.4×10^{-4} lb/Long Ton of taconite pellets produced Hydrogen fluoride emissions must not exceed 3.3×10^{-4} lb/Long Ton of taconite pellets produced.

■ 25. Revise newly redesignated table 4 to subpart RRRRR to read as follows:

TABLE 4 TO SUBPART RRRRR OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRRR OF PART 63

[As required in § 63.9650, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§ 63.1(a)(1)–(4)	Applicability	Yes.	
§ 63.1(a)(5)	[Reserved]	No.	
§ 63.1(a)(6)	Applicability	Yes.	
§ 63.1(a)(7)–(9)	[Reserved]	No.	
§ 63.1(a)(10)–(14)	Applicability	Yes.	
§ 63.1(b)(1)	Initial Applicability Determination	Yes.	
§ 63.1(b)(2)	[Reserved]	No.	
§ 63.1(b)(3)	Initial Applicability Determination	Yes.	
§ 63.1(c)(1)–(2)	Applicability After Standard Established, Permit Requirements.	Yes.	

TABLE 4 TO SUBPART RRRRR OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRRR OF PART 63—Continued

[As required in § 63.9650, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§ 63.1(c)(3)–(4)	[Reserved]	No.	
§ 63.1(c)(5)	Area Source Becomes Major	Yes.	
§ 63.1(c)(6)	Reclassification	Yes.	
§ 63.1(d)	[Reserved]	No.	
§ 63.1(e)	Equivalency of Permit Limits	Yes.	
§ 63.2	Definitions	Yes.	
§ 63.3(a)–(c)	Units and Abbreviations	Yes.	
§ 63.4(a)(1)–(2)	Prohibited Activities	Yes.	
§ 63.4(a)(3)–(5)	[Reserved]	No.	
§ 63.4(b)–(c)	Circumvention, Fragmentation	Yes.	
§ 63.5(a)(1)–(2)	Construction/Reconstruction, Applica- bility.	Yes.	
§ 63.5(b)(1)	Construction/Reconstruction, Applica- bility.	Yes.	
§ 63.5(b)(2)	[Reserved]	No.	
§ 63.5(b)(3)–(4)	Construction/Reconstruction, Applica- bility.	Yes.	
§ 63.5(b)(5)	[Reserved]	No.	
§ 63.5(b)(6)	Applicability	Yes.	
§ 63.5(c)	[Reserved]	No.	
§ 63.5(d)(1)–(4)	Application for Approval of Construc- tion or Reconstruction.	Yes.	
§ 63.5(e)	Approval of Construction or Recon- struction.	Yes.	
§ 63.5(f)	Approval Based on State Review	Yes.	
§ 63.6(a)	Compliance with Standards and Main- tenance Requirements.	Yes.	
§ 63.6(b)(1)–(5)	Compliance Dates for New/Recon- structed Sources.	Yes.	
§ 63.6(b)(6)	[Reserved]	No.	
§ 63.6(b)(7)	Compliance Dates for New/Recon- structed Sources.	Yes.	
§ 63.6(c)(1)–(2)	Compliance Dates for Existing Sources.	Yes.	
§ 63.6(c)(3)–(4)	[Reserved]	No.	
§ 63.6(c)(5)	Compliance Dates for Existing Sources.	Yes.	
§ 63.6(d)	[Reserved]	No.	
§ 63.6(e)(1)(i)	Operation and Maintenance Require- ments—General Duty to Minimize Emissions.	Yes, on or before the compliance date specified in § 63.9600(a). No, after the compliance date specified in § 63.9600(a).	See § 63.9600(a) for general duty re- quirement.
§ 63.6(e)(1)(ii)	Operation and Maintenance Require- ments—Requirement to Correct Malfunction as Soon as Possible.	No.	
§ 63.6(e)(1)(iii)	Operation and Maintenance Require- ments—Enforceability.	Yes.	
§ 63.6(e)(2)	[Reserved]	No.	
§ 63.6(e)(3)	Startup, Shutdown, Malfunction (SSM) Plan.	Yes, on or before the compliance date specified in § 63.9610(c). No, after the compliance date specified in § 63.9610(c).	
§ 63.6(f)(1)	SSM exemption	No	See § 63.9600(a).
§ 63.6(f)(2)–(3)	Methods for Determining Compliance	Yes.	
§ 63.6(g)(1)–(3)	Alternative Nonopacity Standard	Yes.	
§ 63.6(h), except (h)(1).	Compliance with Opacity and Visible Emission (VE) Standards.	No	Opacity limits in subpart RRRRR are established as part of performance testing in order to set operating lim- its for ESPs.
§ 63.6(h)(1)	Compliance except during SSM	No	See § 63.9600(a).
§ 63.6(i)(1)–(14)	Extension of Compliance	Yes.	
§ 63.6(i)(15)	[Reserved]	No.	
§ 63.6(i)(16)	Extension of Compliance	Yes.	
§ 63.6(j)	Presidential Compliance Exemption ...	Yes.	
§ 63.7(a)(1)–(2)	Applicability and Performance Test Dates.	No	Subpart RRRRR specifies perform- ance test applicability and dates.
§ 63.7(a)(3)–(4)	Performance Testing Requirements ...	Yes.	
§ 63.7(b)	Notification	Yes.	
§ 63.7(c)	Quality Assurance/Test Plan	Yes.	

TABLE 4 TO SUBPART RRRRR OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRRR OF PART 63—Continued

[As required in § 63.9650, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§ 63.7(d)	Testing Facilities	Yes.	See § 63.9621.
§ 63.7(e)(1)	Conduct of Performance Tests	No	
§ 63.7(e)(2)–(4)	Conduct of Performance Tests	Yes.	
§ 63.7(f)	Alternative Test Method	Yes.	
§ 63.7(g)	Data Analysis	Yes	Except this subpart specifies how and when the performance test results are reported.
§ 63.7(h)	Waiver of Tests	Yes.	
§ 63.8(a)(1)–(2)	Monitoring Requirements	Yes.	
§ 63.8(a)(3)	[Reserved]	No.	
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart RRRRR does not require flares.
§ 63.8(b)(1)–(3)	Conduct of Monitoring	Yes.	
§ 63.8(c)(1)(i)	Operation and Maintenance of CMS ..	Yes, on or before the compliance date specified in § 63.9632(b)(4). No, after the compliance date specified in § 63.9632(b)(4).	
§ 63.8(c)(1)(ii)	Spare parts for CMS Equipment	Yes.	
§ 63.8(c)(1)(iii)	SSM Plan for CMS	Yes, on or before the compliance date specified in § 63.9632(b)(4). No, after the compliance date specified in § 63.9632(b)(4).	See § 63.9632 for operation and maintenance requirements for monitoring. See § 63.9600(a) for general duty requirement.
§ 63.8(c)(2)–(3)	CMS Operation/Maintenance	Yes.	
§ 63.8(c)(4)	Frequency of Operation for CMS	No	
§ 63.8(c)(5)–(8)	CMS Requirements	Yes	
§ 63.8(d)(1)–(2)	Monitoring Quality Control	Yes.	Subpart RRRRR specifies requirements for operation of CMS. CMS requirements in § 63.8(c)(5) and (6) apply only to COMS for dry ESPs.
§ 63.8(d)(3)	Monitoring Quality Control	No	
§ 63.8(e)	Performance Evaluation for CMS	Yes.	
§ 63.8(f)(1)–(5)	Alternative Monitoring Method	Yes.	
§ 63.8(f)(6)	Relative Accuracy Test Alternative (RATA).	Yes	Only if using continuous emission monitoring systems to demonstrate compliance with Table 2 to this subpart.
§ 63.8(g)(1)–(g)(4)	Data Reduction	Yes.	
§ 63.8(g)(5)	Data That Cannot Be Used	No	
§ 63.9	Notification Requirements	Yes	
§ 63.9(k)	Electronic reporting procedures	Yes	Additional notifications for CMS in § 63.9(g) apply to COMS for dry ESPs.
§ 63.10(a)	Recordkeeping and Reporting, Applicability and General Information.	Yes.	
§ 63.10(b)(1)	General Recordkeeping Requirements	Yes.	
§ 63.10(b)(2)(i)	Records of SSM	No	
§ 63.10(b)(2)(ii)	Recordkeeping of Failures to Meet a Standard.	No	See § 63.9642 for recordkeeping when there is a deviation from a standard.
§ 63.10(b)(2)(iii)	Maintenance Records	Yes.	
§ 63.10(b)(2)(iv)	Actions Taken to Minimize Emissions During SSM.	No.	
§ 63.10(b)(2)(v)	Actions Taken to Minimize Emissions During SSM.	No.	
§ 63.10(b)(2)(vi)	Recordkeeping for CMS Malfunctions	Yes.	See § 63.9642 for recordkeeping of (1) date, time and duration; (2) listing of affected source or equipment, and an estimate of the quantity of each regulated pollutant emitted over the standard; and (3) actions to minimize emissions and correct the failure.
§ 63.10(b)(2)(vii)–(xii)	Recordkeeping for CMS	Yes.	
§ 63.10(b)(2)(xiii)	Records for Relative Accuracy Test ...	No.	
§ 63.10(b)(2)(xiv)	Records for Notification	Yes.	
§ 63.10(b)(3)	Applicability Determinations	Yes.	

TABLE 4 TO SUBPART RRRRR OF PART 63—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART RRRRR OF PART 63—Continued

[As required in § 63.9650, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:]

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§ 63.10(c)(1)–(6)	Additional Recordkeeping Requirements for Sources with CMS.	Yes.	Subpart RRRRR specifies record-keeping requirements.
§ 63.10(c)(7)–(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS.	
§ 63.10(c)(9)	[Reserved]	No.	
§ 63.10(c)(10)–(14)	CMS Recordkeeping	Yes.	
§ 63.10(c)(15)	Use of SSM Plan	No.	
§ 63.10(d)(1)–(2)	General Reporting Requirements	Yes	Except this subpart specifies how and when the performance test results are reported.
§ 63.10(d)(3)	Reporting opacity or VE observations	No	Subpart RRRRR does not have opacity and VE standards that require the use of EPA Method 9 of appendix A–4 to 40 CFR part 60 or EPA Method 22 of appendix A–7 to 40 CFR part 60.
§ 63.10(d)(5)	SSM Reports	Yes, on or before the compliance date specified in § 63.9641(b)(4). No, after the compliance date specified in § 63.9641(b)(4).	See § 63.9641 for malfunction reporting requirements.
§ 63.10(e)	Additional Reporting Requirements	Yes, except a breakdown of the total duration of excess emissions due to startup/shutdown in § 63.10(e)(3)(vi)(I) is not required and when the summary report is submitted through CEDRI, the report is not required to be titled “Summary Report-Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance.”.	The electronic reporting template combines the information from the summary report and excess emission report with the Subpart RRRRR compliance report.
§ 63.10(f)	Waiver for Recordkeeping or Reporting.	Yes.	Subpart RRRRR does not require flares.
§ 63.11	Control Device and Work Practice Requirements.	No	
§ 63.12(a)–(c)	State Authority and Delegations	Yes.	
§ 63.13(a)–(c)	State/Regional Addresses	Yes.	
§ 63.14(a)–(t)	Incorporation by Reference	Yes.	
§ 63.15(a)–(b)	Availability of Information and Confidentiality.	Yes.	
§ 63.16	Performance Track Provisions	Yes.	

**Exhibit B: Senate Letter Supporting Stay
(June 2024)**

United States Senate

WASHINGTON, DC 20510

June 14, 2024

The Honorable Michael S. Regan
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, D.C. 20460

Dear Administrator Regan:

We write to you today regarding three U.S. Environmental Protection Agency (EPA) rules that together threaten the economic competitiveness of the American integrated steel industry. We urge EPA to grant the petitions filed by the domestic integrated steel industry seeking administrative reconsiderations and stays of all three final rules until the EPA can complete a comprehensive review of each rule through the administrative reconsideration process.

Working together, EPA and industry have achieved notable reductions in environmental impacts to air, water, and land over the past 50 years. The steel industry in the U.S. is the world's cleanest major producer of steel and is already subject to more environmental regulation than its global competitors, resulting in a cleaner environment. While we appreciate EPA's efforts to address concerns raised by multiple stakeholders – including steel companies, the United Steelworkers (USW), coke producers, and numerous Members of Congress – throughout the rulemaking process, we remain concerned that the final rules contain flaws that will undermine the domestic steel industry and national security while driving production overseas. We are specifically concerned about the following three rules:

- National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing (EPA-HQ-OAR-2017-0664)
- National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing Facilities (EPA-HQ-OAR-2002-0083)
- National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries (EPA-HQ-OAR-2002-0085 and EPA-HQ-OAR-2003-0051).

A failure to get these regulations right will not only have a negative impact on domestic steel production and American steelworkers, but it will also likely fail to achieve a net reduction in emissions from the steel industry globally. In fact, emissions will likely rise as production moves to countries, like China, with far less stringent rules and regulations. By granting the requested administrative reconsideration and stay of the rules, the EPA and industry can build on their shared track record of success and continue to work together in a constructive manner to achieve durable rules that both protect the environment and our domestic integrated steel industry.

Throughout the rulemaking process, EPA worked to address technical and analytical flaws with these rules raised by multiple stakeholders. The modifications incorporated into the final rules in response to stakeholder feedback were important steps in the right direction, but we remain concerned they did not go far enough in addressing fundamental flaws with the rules. Further modifications are needed to address new information provided to EPA by stakeholders to ensure the rules are achievable by the industry, as required by the Clean Air Act, and that the regulations do not induce unintended consequences, such as loss of domestic steelmaking capacity and jobs. Given all that is at stake in terms of our country's advanced steel manufacturing capabilities and the good-paying, middle class union jobs the steel industry sustains, it is critically important that these rules are technically and economically feasible and do not undermine the competitiveness of the industry.

A stay of these rules will allow EPA to continue to work with industry stakeholders, including domestic companies and the USW, to obtain a complete and thorough understanding of the new information, equipment, and processes and ensure regulations moving forward are sound policy. Absent a stay, the steel industry will be forced to proceed with planning and spending for unproven technologies and work practices while the final provisions of the rules remain uncertain. Given that these regulations will impact nearly every aspect of the integrated iron and steelmaking process, it is imperative that EPA grant both the petitions for reconsideration and requests for stay of the rules.

We urge EPA to grant the industry's petitions for reconsideration and stay requests to ensure that these regulations both safeguard our environment and preserve production capacity and jobs in our strategically important integrated iron and steel sector. Thank you for your work to date with us on these important matters.

Sincerely,




Sherrod Brown
United States Senator



Mike Braun
United States Senator



Robert P. Casey, Jr.
United States Senator



J.D. Vance
United States Senator



Amy Klobuchar
United States Senator



Todd Young
United States Senator

cc: Janet McCabe, Deputy Administrator, U.S. Environmental Protection Agency

**Exhibit C: Declaration of Jason Aagenes
(Cleveland-Cliffs)**

DECLARATION OF JASON AAGENES

1. My name is Jason Aagenes. I am the Director of Environmental Compliance, Mining and Pelletizing for Cleveland-Cliffs Inc. (“Cliffs”).
2. I have been with Cliffs for over 17 years working in capacities related to permitting, air regulatory strategy, environmental compliance, and environmental affairs. The scope of this affidavit covers Cliffs’ taconite iron ore processing facilities in Minnesota and Michigan.
3. I have over 21 years of experience specifically involved in the taconite iron ore mining and processing industry.
4. The Final Rule, *National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing*, 89 Fed. Reg. 16408 (March 6, 2024), adopts an emission limitation for mercury based on a limited amount of stack test data from facilities that were processing low-mercury ore at the time.
5. The amount of mercury in the taconite ore (as measured at the unfired pellet, i.e. greenball) is highly variable with concentrations ranging from less than 1 ng/g (part per billion) to over 35 ng/g (part per billion).
6. When a taconite processing facility encounters high levels of mercury in the ore there is no demonstrated control technology that can reduce the mercury emissions enough to meet the mercury limits in the Final Rule.

7. Cleveland-Cliffs provided “greenball” data establishing the variable mercury in taconite ore information to EPA prior to the end of the public comment period for the Final Rule. EPA did not adjust the Final Rule to account for this inherent mercury variability in the taconite ore processed.
8. EPA responded to industry comments that the mercury emission limitations in the Final Rule are achievable when using activated carbon injection (ACI) with high efficiency wet scrubbers. None of the affected taconite furnaces regulated by the Final Rule have installed ACI with high efficiency wet scrubbers so we do not know, and EPA cannot know, whether this control system will work in this application or what level of control can be achieved in practice for taconite furnaces.
9. Because this technology has not been demonstrated in practice for the complex taconite furnace systems, the Final Rule requires first that each furnace determine the mercury control system that will work for each furnace and for each pellet type produced. This is expected to take at least 12 months at a cost of \$4 million per facility and far more if multiple control systems must be evaluated to find one that works, and there is no guarantee that one control system will achieve the emission limits without causing unacceptable production or operational consequences.

10. This work must begin immediately because based on my experience and knowledge of previous work done by Cliffs' facilities and consultants, the design, engineering, fabrication, installation, and optimization will take a minimum of two years to complete. Given the emission limits have to be met in three years – the pilot testing and technology assessment must occur in this first year.
11. A change to the mercury emission standard to account for the variability of mercury in the ore, or to subcategorize based on ore type or ore processing type, will significantly change the emission control system assessment for Cleveland-Cliffs' furnaces. Therefore, the millions of dollars in cost incurred this first year to assess control technologies for meeting the current standard may be wasted and unrecoverable if the Final Rule emission standard changes as a result of judicial review or reconsideration.
12. Taconite furnaces operate continuously 24 hours per day and 7 days per week so the installation of mercury or acid gas control technology requires coordination with a planned major maintenance outage, which generally occurs once per year. If the schedule to develop and implement control technology is compressed without staying the rule and installation requires an additional outage, the additional production cost of shutting down a furnace ranges from approximately \$300,000 to \$1,300,000 per day. An

outage of approximately four weeks is expected to be necessary to install and troubleshoot a new control installation. This lost production cost of \$10-35 million per facility is not recoverable.

13. Taconite furnaces make different types of pellets with different amounts of fluxing agents and iron ore concentrate. Furnaces will run one type of pellet for months before switching to another type of pellet. Therefore, assessing how a new control technology works over multiple pellet types requires many months to account for pellet-based differences.
14. The costs of installing new control technology at this scale are expected to cost Cleveland-Cliffs hundreds of millions of dollars to remove a small amount of mercury. We have calculated our expected costs at \$745,975 per pound of mercury removed. We are not aware of any rule that has required this level of expenditure per pound of mercury or any other pollutant.
15. Cleveland-Cliffs provided comments to EPA that included a study by Barr Engineering of available data showing that activated carbon injection will change elemental mercury in the taconite furnace stacks to particle bound mercury. Cleveland-Cliffs now has speciated mercury data from ACI trials that confirm the amount of particle-bound mercury emitted during baseline conditions without ACI is less than the amount of particle-bound mercury emitted after controls when using ACI. Cleveland-Cliffs expressed its

concern that ACI is significantly increasing locally deposited mercury to EPA in a Petition for Reconsideration for the Final Rule on May 6, 2024.

16. Given the immediate need for pilot testing of ACI to determine if it can be used to meet the Final Rule mercury limits at Cliffs' taconite facilities as EPA has suggested, increased local mercury deposition from the use of ACI presents immediate concern if the Final Rule is not stayed during judicial review and reconsideration.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Sincerely,



Jason Aagenes

Director of Environmental
Compliance, Mining and Pelletizing
Cleveland-Cliffs Inc.

Executed June 20, 2024

**Exhibit D: Declaration of Ryan Siats (Barr
Engineering)**

DECLARATION OF RYAN SIATS

1. My name is Ryan Siats. I am a Vice President and Senior Environmental Consultant at Barr Engineering.
2. I have been with Barr Engineering for more than 9 years working in capacities relating to permitting, air quality analyses, and environmental regulation. I have over 17 years' experience in environmental regulatory work in the taconite mining industry.
3. The scope of this affidavit covers taconite iron ore processing facilities in Minnesota and Michigan.
4. The Final Rule, *National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing*, 89 Fed. Reg. 16408 (March 6, 2024), adopts new emission limitations for mercury based on stack test data from taconite furnaces.
5. Stack test data alone cannot account for the variability of mercury in the taconite ore being processed. Based on the data I have examined of the mercury historically measured in the greenballs formed from concentrated taconite ore, the amount of mercury coming into the furnaces can be high enough that the 85% control efficiency that EPA attributes to activated carbon using high efficiency wet scrubbers is insufficient to meet the Final Rule mercury emission limit.
6. I have studied the literature and test data on the speciation of mercury in taconite furnace emissions using scrubbers without activated carbon injection (ACI) control and the average elemental mercury percentage is 93-99%. The remaining 1-7% of the mercury is oxidized and particle-bound mercury.
7. When ACI is introduced the particle-bound mercury increases significantly and the elemental mercury correspondingly decreases as the activated carbon converts elemental mercury to particle-bound mercury for capture. With adequate residence time, prior pilot testing has demonstrated that the particle-bound mercury can increase to be over 90% and the elemental fraction drops below 10%.
8. In theory, the particle-bound mercury generated with ACI would be captured by a control device. The existing control systems for existing taconite furnaces are wet scrubbers or electrostatic precipitators (ESPs). US EPA estimates that the maximum control efficiency for a high efficiency wet scrubber is 80%-85%. In practice, the measured control efficiency can be far lower (48-82%). Even assuming EPA's maximum control efficiency, 15-20% of the particle-bound mercury is getting past the control equipment to the environment.
9. The existing control systems have been optimized in design and control to achieve current particulate matter emission limits, and accommodating additional particulate loading via introduction of ACI is not feasible for maintaining continuous compliance with current particulate matter emission limits.
10. When comparing the amount of particle-bound mercury without ACI and the amount of particle-bound mercury that is not captured by high-efficiency wet scrubber control, there could be 13.4 times higher net increase in particle-bound mercury emissions compared to baseline conditions when ACI is applied to wet scrubbers. This means that far more particle-bound mercury is likely emitted after employing ACI and high efficiency wet scrubbers than without this control system.

11. This increase is important because particle-bound mercury is known in the literature to be deposited locally (within 50 miles) while elemental mercury remains in the atmosphere for long periods of time and travels hundreds if not thousands of miles before being deposited via precipitation or other atmospheric transformation.
12. The effect of ACI control with high efficiency wet scrubbers could lead to a significant increase in the amount of locally deposited mercury within the area around a taconite furnace, of which tribal areas and designated environmental justice communities reside within.
13. Additional pilot testing of ACI with various capture and control systems is being conducted at one or more taconite facilities this month and are expected to continue for many months. Based on our prior analysis of literature and previously conducted pilot test data, the amount of particle-bound mercury deposited locally could increase during this testing as compared with taconite furnaces using scrubbers and ESPs without ACI.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Sincerely,



Ryan Siats

Vice President and Senior Environmental
Consultant

Barr Engineering

Executed June 3, 2024

**Exhibit E: Letter from United Steelworkers (June 24,
2024)**

June 24, 2024

Via Email

The Honorable Michael Regan
Administrator
U.S. Environmental Protection Agency
Washington, D.C. 20460

RE: United Steelworkers urges review of the reconsideration petition filed by the domestic integrated steel industry.

Dear Administrator Regan:

I am writing on behalf of the members of the United Steelworkers union (USW). As you know, USW is the largest union representing workers in the steel industry and its supply chain. Over the last year, our union has engaged, in close coordination with our members' employer companies, with the U.S. Environmental Protection Agency (EPA) on the following recently rules impacting the steel industry:

- National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing (EPA-HQ-OAR-2017-0664);
- National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing Facilities (EPA-HQ-OAR-2002-0083); and
- National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries (EPA-HQ-OAR-2002-0085 and EPA-HQ-OAR-2003-0051).

Our union proudly worked to pass the Clean Air Act, and we fully support EPA's mandate under the statute to reduce air pollution. We appreciate the efforts that EPA has taken to address certain technical and analytical flaws, as well as addressing feasibility. That being the case, the changes incorporated by EPA in the final rules do not address all the technical and economic concerns expressed by the industry and our union.

These modifications are needed to prevent unintended consequences, such as job loss, loss of domestic steelmaking capacity, and a demand on capital investment that detracts from other Biden administration priorities including reinvestment in domestic industry and decarbonization.

We urge EPA to grant the reconsideration petitions filed by the domestic integrated steel industry, and ensure that stays are issued for all three final rules while EPA conducts the administrative reconsideration process. Thank you, in advance, for standing up for Steelworker jobs.

Sincerely,

A handwritten signature in dark ink, appearing to read "David McCall". The signature is fluid and cursive, with the first name "David" and last name "McCall" clearly distinguishable.

David McCall
International President

CC: Janet McCabe, Deputy Administrator, U.S. Environmental Protection Agency